

# Surnalin RP Cold Sterilant

## Composition and Shelf life

Peracetic acid: 4 % w/w ( Range 4 to 6%)  
Hydrogen Peroxide: 21%w/w ( Range 20 to 24%)  
Balance: Acetic acid, purified water

It has shelf life of one year.

## Stability Data

Surnalin RP will remain stable in its concentrated form for over 1 year. Once it is diluted, a decay process begins to take place. The decay is such that when diluted with purified water, 50% of the peracetic acid will remain after 7 days. The ratio of dilution effects the rate of decay of peracetic acid contained in the Surnalin RP solution

## Temperature and Stability

Concentrated Surnalin RP remains stable at temperatures up to 30°C for a period of 1 year. However, once Surnalin RP is diluted, the rate of decay of the peracetic acid is greatly increased as the temperature increases.

Surnalin RP Stability:

Once the product is diluted, it must be used within 7 days, and storage and use temperature must be maintained below 30°C.

### 1. Concentrated Surnalin RP

Months	1	4	7	10	13
PAA %	5.5	5.1	4.7	4.4	4

### 2. Diluted Surnalin RP-3.5%

Days	1	3	5	7	9	11	13	14
PAA, ppm	1750	1600	1500	1400	1300	1200	1100	1000

### 3. Diluted Surnalin RP-1%

Days	1	2	3	4	5	6	7
PAA,ppm	500	470	420	370	330	290	250

## Microbial Data

Chemical composition of Surnalin RP with respect to active ingredients like, Peracetic acid, Hydrogen peroxide and acetic acid as well as stability data are identical to that of Minncare Cold sterilant. Independent microbial testing of Surnalin RP is not carried out . However, in view of exactly similar chemical composition, microbial test data will be similar to that of Minncare cold sterilant. If it is felt essential, parallel testing of Surnalin RP with Minncare cold sterilant can be performed for desired parameters by outside laboratory of repute or your in house laboratory. We are confident of similar performance.

## Application areas

Peracetic acid formulations developed by Surni Labs are FDA approved and are in use since September, 2011 as Cold Sterilant by Medical, Pharmaceutical and Industrial Market.

Surnalin RP Cold Sterilant is a peracetic acid solution developed for use in

- Dialyzer and blood tubing reprocessing in haemodialysis ( 3.5%)
- Reverse osmosis (RO) membranes and their associated distribution systems ( 1%)
- Dry fogging of critical areas of hospitals and pharmaceutical industries for environment disinfection (1%)
- For Surface Disinfection in Pharmaceutical Clean room Environments( 3%)

## Superior Biocidal Activity

Protect reverse osmosis membranes and their associated distribution systems against short- and long-term bacterial problems. Surnalin RP Cold Sterilant is a powerful oxidant that stops organism growth by oxidizing microbial cell proteins and enzyme systems and effectively removes biofilms.

Surnalin RP Cold Sterilant provides a 6 log reduction of bacteria population at a 100X dilution (1%) within a 36-minute soak time. Elimination of bacterial contamination will help improve product quality and contribute to increased RO membrane life.

Surnalin RP Cold Sterilant may eliminate the need for acid cleaning of fouled membranes prior to disinfection in cases where transition metals, such as iron, are not present.

## Biodegradable and Ease of Disposal

Surnalin RP Cold Sterilant is biodegradable and will decompose into oxygen, water and acetic acid. It poses no threat to municipal waste treatment plants.

## Compatible w/ Thin Film Composite Membranes

Surnalin RP Cold Sterilant gently and completely cleans membranes. Many of the applications have included extended soak times. Surnalin RP Cold Sterilant will disinfect membranes and protect against decreased flux that is commonly associated with the use of formaldehyde.

## No Toxic-Aldehyde Vapors

Surnalin RP Cold Sterilant protects employees from exposure to toxic aldehyde vapors. Although proper care must be taken when handling concentrated Surnalin RP Cold Sterilant, the use-dilution form requires no exceptional handling procedures.

## Surnalin RP Test Strips

### Validated Peracetic Acid Test Strips

Peracetic acid Test Strips provide quick results with easy-to-read indicators. Use the suitable 1000 ppm or 500 ppm Test Strips as a pass/fail measurement for adequate concentration of sterilant after dilution.

Residual levels can be checked after rinse-out using Residual Test Strips.

## List of Users

1. Surnalin RP is in use in many dialysis centers of India for Dialyser reprocessing with full satisfaction. Some of them are listed below
  - P.D. Hinduja National Hospital, Mumbai
  - Muljibhai Patel Urological Hospital, Nadiad
  - ZyduS Hospital & Healthcare Research Pvt. Ltd. Anand.
2. It used for RO membranes and water system disinfection by
  - Fourrts ( India) Laboratories Pvt. Ltd, Chennai

Its use as dry fog and surface disinfection is new to India and so far there is no customer for this application. The resistance for use in this application is due to vinegar smell and availability of other disinfectants.

**Surni Labs**  
**470, GIDC,**  
**Manjusar, Taluka Savli**  
**Dist. Vadodara-391775**  
**Gujarat**

# SURNI LABS

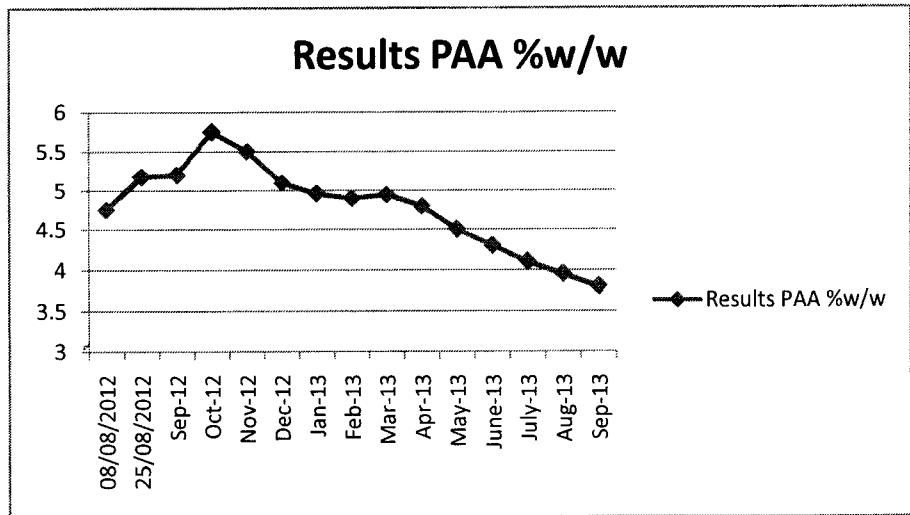
470, G.I.D.C., MANJUSAR, TA-SAVLI, DIST - VADODARA - 391775

## STABILITY STUDY OF SURNALIN RP (Concentrated)

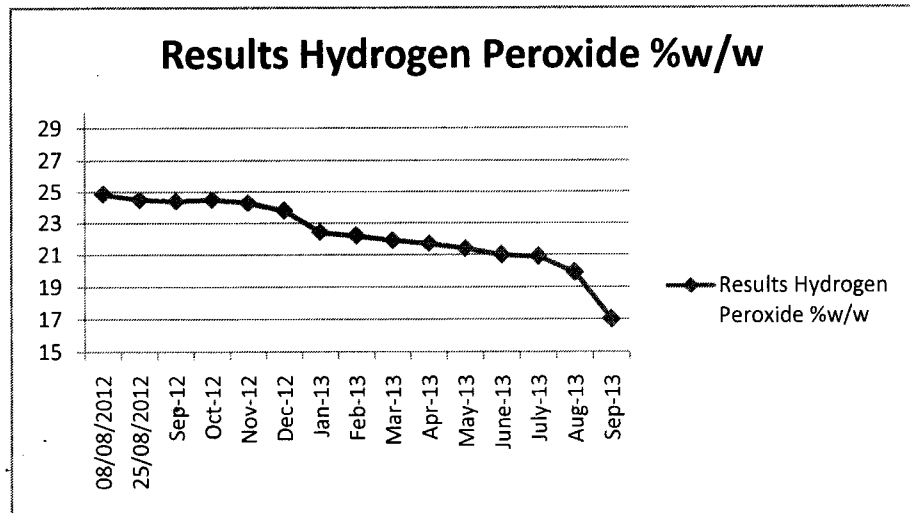
<b>SURNALIN RP</b>	<b>It contains</b>
	Peracetic acid: 4.0%,
	Hydrogen Peroxide: 21.0%

Batch No.: 001 (Stability Study)  
 Date of Manufacturing: 01/08/2012  
 Date of Expiry (Expected): 31/07/2013

Date Of analysis	Results PAA %w/w
08/08/2012	4.75
25/08/2012	5.18
Sep-12	5.2
Oct-12	5.75
Nov-12	5.5
Dec-12	5.1
Jan-13	4.96
Feb-13	4.9
Mar-13	4.95
Apr-13	4.8
May-13	4.5
June-13	4.3
July-13	4.1
Aug-13	3.95
Sep-13	3.8



Date Of analysis	Results Hydrogen Peroxide %w/w
08/08/2012	24.85
25/08/2012	24.5
Sep-12	24.4
Oct-12	24.5
Nov-12	24.3
Dec-12	23.8
Jan-13	22.4
Feb-13	22.2
Mar-13	21.9
Apr-13	21.7
May-13	21.4
June-13	21
July-13	20.9
Aug-13	19.9
Sep-13	17



Done By A.R. Patel

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# SURNI LABS

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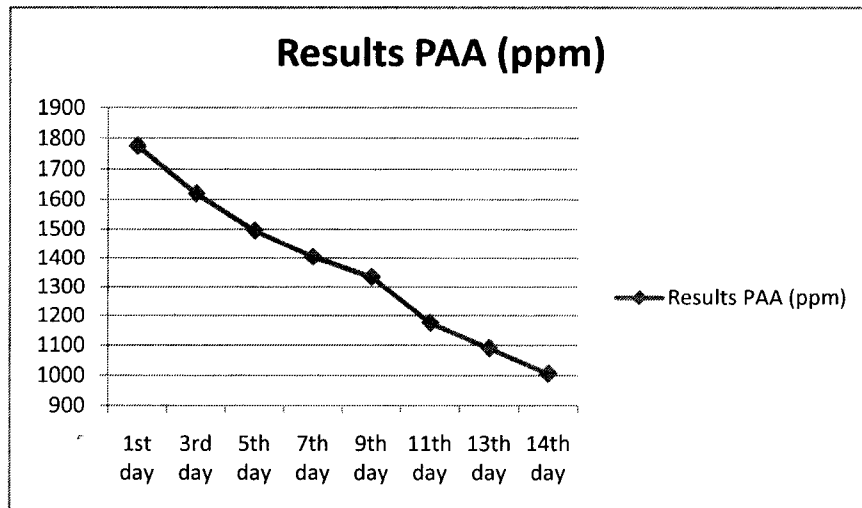
## STABILITY STUDY OF SURNALIN RP (Dilution - 3.5% & 1.0%)

<b>SURNALIN RP</b>	<b>It contains</b>
	Peracetic acid: 4.0%,
	Hydrogen Peroxide: 21.0%

Batch No.: 001 (Stability Study)  
 Date of Manufacturing: 01/08/2012  
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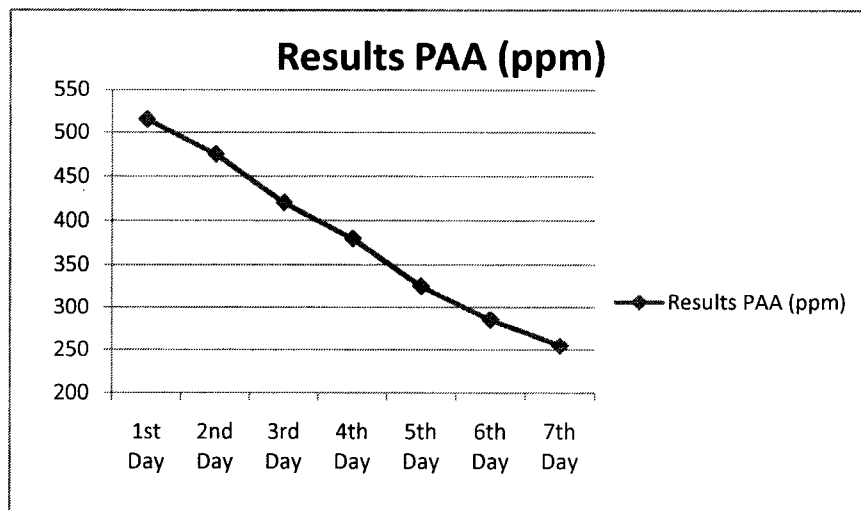
### DILUTION 3.50%

Date Of analysis	Results PAA (ppm)
1st day	1775
3rd day	1620
5th day	1495
7th day	1405
9th day	1335
11th day	1175
13th day	1090
14th day	1005



### DILUTION 1.00%

Date Of analysis	Results PAA (ppm)
1st Day	515
2nd Day	475
3rd Day	420
4th Day	380
5th Day	325
6th Day	285
7th Day	255



Done By A. D. Patel

Checked By: \_\_\_\_\_