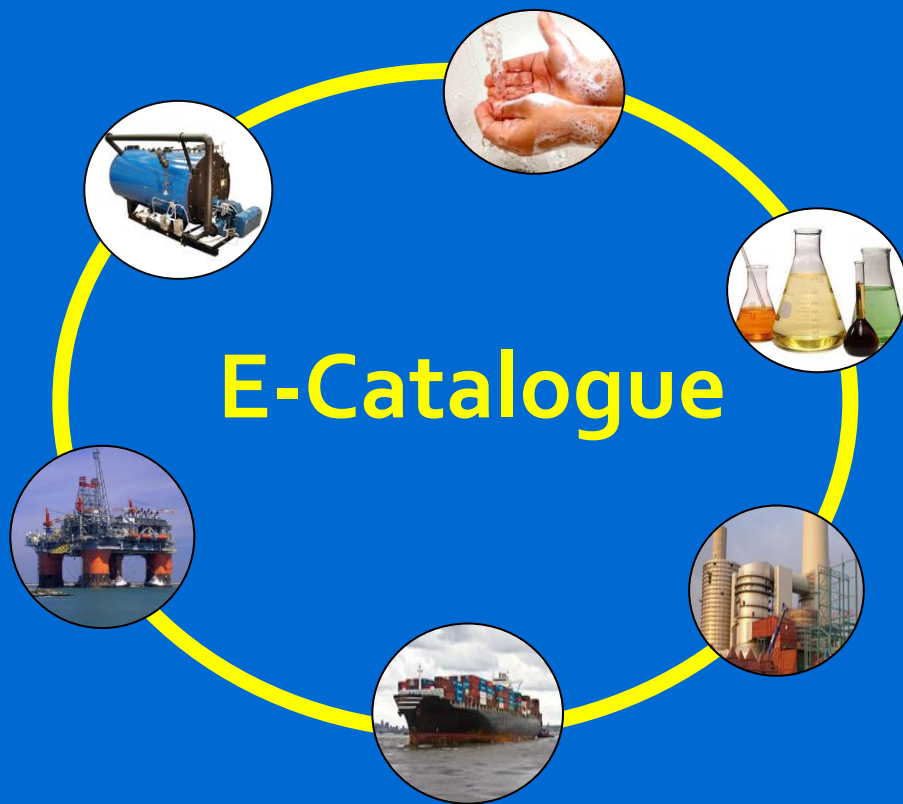


Rx Marine International

BSEL Tech Park A-wing Room No:-105 opp. Vashi Railway Station Navi Mumbai

RXSOL WATER TREATMENT TEST KIT



We have sold over a million Liters of RXSOL products without a failure. We put this down to the fact that, as manufacturers, we total control of the raw materials we use and our manufacturing process. Many of our competitor's source their tank cleaner have form third parties abroad and cannot stand by their products as confidently as we can. We have **Branch at:-Mumbai, Kandla, Kolkata, Surat, Chennai, Fujraha (U.A.E.)** We are also providing the **24x7** online support to our customer with solution for more information about our company profile/product/query mail us at :- **mail@rxmarine.com** otherwise visit our website :- **www.rxmarine.com** we are feel pleasure to serve you better

***We** have sold over a million Liters of RXSOL products without a failure. We put this down to the fact that, as manufacturers, we have total control of the raw materials we use and our manufacturing process. Many of our competitors source their tank cleaner from third parties abroad and cannot stand by their products as confidently as we can.*

***We** offer a wide range of marine chemical products to include maintenance, tank cleaning and water treatment, fuel oil treatment, swimming pool chemicals. We are committed to the safety of the environment and hence most of our products are eco-friendly, bio-degradable and meet international quality standards.*

***We** are manufacturer and distributor that specialize in providing custom solutions. Whether it is private labeling, custom packaging, chemical manufacturing or product sourcing, we have the team in place to make business with us as simple as possible. We provide excellent products and service to markets. Our customer located worldwide.*

TOPIC INCLUDED

NITRITE TEST KIT.....	1
CHLORIDE TEST KIT.....	2
ALKALINITY TEST KIT.....	3
PASSIVATION TEST KIT.....	4
pH TEST KIT.....	5
HYDRAZINE TEST KIT.....	5
SPECTRA 309 TEST KIT.....	6
CHLORIFORM TEST KIT	8
CHLORINE TEST KIT.....	9
PHOSPHATE TEST KIT.....	10

Code:- RXSOL-62-5507

Applications and Industries:- Industrial process waters, boiler water, cooling waters

Chemistry:- Results are expressed in ppm (mg/L) sodium nitrite (NaNO_2).

Alias:-

Cooling Water Test Kit , jcw test, Care treat 2 Diesel, Cool treat Al Test Kit, COOLING WATER TITRATE

Application:-

The method is free from glycol interference in samples that contain up to 75% glycol, making it particularly applicable to systems that contain nitrite corrosion inhibitors. Results are expressed as ppm (mg/L) NaNO_2 .



PROCEDURE FOR TEST (STEP WISE):-

1. Measure 1 ml of SAMPLE WATER in graduated TEST TUBE / CYLINDER , with the help of syringe / pipette and diluted with Distilled Water up to 10 ml.

2. Add 1-2 drops of RXSOL TK5 and mix with the stirring rod, to obtain ORANGE / light reddish color.

3. Add RXSOL TK6 drop by drop, mixing with the stirring rod until for endpoint ORANGE to BLUE / GREENISH color just appears / develop.

Each DROPS is equivalent to 50 PPM of NO_2

CALCULATION:- $50 \times \text{Number of DROPS of TK6}$

Note:-

Storage Requirements:- Kits should be stored in the dark and at room temperature.

Shelf Life:- The nitrite Titrates kits have 2-year shelf lives.

Accuracy:- Due to the non-linear nature of the test scale, the accuracy of this test varies with the location of the test result on the scale. At twice the minimum concentration for a particular

NITRITE IMPORTANCE:-

Nitrite, an intermediate in the nitrogen cycle, is formed during the decomposition of organic matter but readily oxidizes to form nitrate. These processes occur in wastewater treatment plants, water distribution systems, and natural waters. Nitrites are useful as corrosion inhibitors, preservatives, pigments, and in manufacturing many organic preservative chemicals. A Maximum Contaminant Level of 1 mg/L has been established by the USEPA for nitrite-nitrogen in drinking water.

Chloride Test Kit (REAGENT & APPARATUS):

Reagent: RXSOL TK 1 , TK 2 , TK 3 , TK4 .

Apparatus: TEST TUBE , Titrator or DROPPER.

PROCEDURE FOR TEST (STEP WISE):-

- 1) Measure 15 ml of SAMPLE WATER in graduated TEST TUBE / CYLINDER
- 2) Add 1-2 drops of RXSOL **TK1** and mix with the stirring rod, If sample turns red / PINK then follows 3rd step otherwise if sample remains colorless proceed to step 4.
- 3) Add **RXSOL TK2 drop** by drop, mixing with the stirring rod until color just disappears.
- 4) Add 3 drops of **RXSOL TK3** and mix with stirring rod , the sample will turn YELLOW.
- 5) Add **RXSOL TK4** carefully by counting drop by drop and mixing thoroughly until a light reddish / pink / brown color develop



TK4 Drops	Chloride value in	PPM
1	>>>>>>>>>>>	8
2	>>>>>>>>>>>	16
3	>>>>>>>>>>>	24
4	>>>>>>>>>>>	32
5	>>>>>>>>>>>	40
6	>>>>>>>>>>>	48
7	>>>>>>>>>>>	56
8	>>>>>>>>>>>	64
9	>>>>>>>>>>>	72
10	>>>>>>>>>>>	80
11	>>>>>>>>>>>	88
12	>>>>>>>>>>>	96
13	>>>>>>>>>>>	104
14	>>>>>>>>>>>	112
15	>>>>>>>>>>>	120
16	>>>>>>>>>>>	128
20	>>>>>>>>>>>	160
26	>>>>>>>>>>>	192
28	>>>>>>>>>>>	208
30	>>>>>>>>>>>	224
32	>>>>>>>>>>>	240
34	>>>>>>>>>>>	256
36	>>>>>>>>>>>	272
38	>>>>>>>>>>>	288
40	>>>>>>>>>>>	304
42	>>>>>>>>>>>	320
44	>>>>>>>>>>>	336
46	>>>>>>>>>>>	352
48	>>>>>>>>>>>	368
50	>>>>>>>>>>>	384
55	>>>>>>>>>>>	400
60	>>>>>>>>>>>	440
70	>>>>>>>>>>>	480
80	>>>>>>>>>>>	560
90	>>>>>>>>>>>	720
100	>>>>>>>>>>>	800

CHLORIDES Content up to 100 PPM level s are acceptable , in low pressure boiler , while more than 300 PPM level should be reduced by increased blow down . Whereas chlorides levels are very high the quality of the feed water should be checked in view to possible saline contamination

Alkalinity TEST FOR BOILER & COOLING WATER

REAGENT & APPARATUS

Reagent: RXSOL TK 7 , TK 8 , TK 9 , . Apparatus: TEST TUBE , Titrator or DROPPER

PROCEDURE FOR p-ALKALINITY TEST (STEP WISE)

- 1) Measure 10 ml of SAMPLE WATER in graduated TEST TUBE / CYLINDER
- 2) Add 1-2 drops of RXSOL TK7 and mix with the stirring rod , If sample turns red / PINK (which indicates presence of p-Alkalinity) then follows 3rd step otherwise if sample remains colorless (Record p-Alkalinity = 0) .
- 3) Add **RXSOL TK9** drop by drop (by counting) , mixing with the stirring rod until color just disappears. Each drop is equivalent to 25 ppm of p-Alkalinity , expressed as CaCO_3

RESULT:- Each DROPS is equivalent to 25 PPM of p-Alkalinity.

NOTE:- p-Alkalinity VALUE = $25 \times (\text{Total Number of DROPS of TK9 , during 3}^{\text{rd}} \text{step})$

B.) PROCEDURE FOR m-ALKALINITY TEST (STEP WISE)

- 1) Measure 10 ml of SAMPLE WATER in graduated TEST TUBE / CYLINDER
- 2) Add 2-3 drops of **RXSOL TK8** and mix with stirring rod , the sample will turn to BLUISH-GREEN .

- 3) Add **RXSOL TK9** carefully by counting drop by drop and mixing thoroughly until a light reddish (salmon) pink color develop.

RESULT: Each DROPS is equivalent to 25 PPM of m-Alkalinity

M-Alkalinity VALUE = $25 \times (\text{Total Number of DROPS of TK9, during 1.3 step})$

4) C.) PROCEDURE for TOTAL ALKALINITY (VALUE of A + VALUE of B)

2.1 Measure 10 ml of SAMPLE WATER in graduated TEST TUBE / CYLINDER

2.2 Add 1-2 drops of **RXSOL TK7** and mix with the stirring rod , If sample turns red / PINK (which indicates presence of p-Alkalinity) then follows 3rd step otherwise if sample remains colorless (Record p-Alkalinity = 0) then proceed to STEP- 4.

2.3 Add **RXSOL TK9** drop by drop (by counting) , mixing with the stirring rod until color just disappears. Each drop is

2.4 Add 2-3 drops of RXSOL TK8 and mix with stirring rod , the sample will turn to BLUISH-GREEN

2.5 Add **RXSOL TK9** carefully by counting drop by drop and mixing thoroughly until a light reddish (salmon) pink color develops.

RESULT:- Each DROPS is equivalent to 25 PPM of Alkalinity

NOTE:- p-Alkalinity ppm CaCO_3 VALUE = 25 X (Total Number of DROPS of TK9 , during 2.3 step) = **X** (Say)

m-Alkalinity ppm CaCO_3 VALUE = 25 X (Total Number of DROPS of TK9 , during 2.5 step) = **Y** (Say)

Total Alkalinity ppm CaCO_3 VALUE = X+Y

For Below 50 ppm , Dose ½ Ltr of RXSOL-50-5001-BWT for 1000 Ltr of BOILER WATER , to maintain p-Alkalinity level 100 ppm.

Refill pack :- REPLACEMENTS

TK7 :- ECONOMIC PACK (100 / 200 / 500 ml) available

TK8 : -ECONOMIC PACK (100 / 200 / 500 ml) available

TK9 :- ECONOMIC PACK (100 / 200 / 500 ml) available

NUMBER OF DROPS OF TK9	p-Alkalinity as CaCO ₃
1 >>>>>>>>>>	25
2 >>>>>>>>>>	50
3 >>>>>>>>>>	75
4 >>>>>>>>>>	100
5 >>>>>>>>>>	125
10 >>>>>>>>>>	250
20 >>>>>>>>>>	500
30 >>>>>>>>>>	750
40 >>>>>>>>>>	1000

Optimum Result : p-Alkalinity level is between 100 to 150 PPM is suggested.

if p-Alkalinity level is more then 150 ppm then level should be reduced by increased BLOW DOWN process with immediate effect.

RXSOL PASSIVATION TEST KIT:-**Description:-**

The reagent keeps color on good passivated stainless steel. A black spot will appear when the surface has not been passivated correctly. Various qualities of passivation will give graduations of grey shades, ranging from light (acceptable) to dark (unacceptable).

The RXSOL Passivation Test Kit is an easy and economical test kit to determine the Passiveness of austenitic stainless steel. Stainless steel is protected from corrosion by a thin layer that consists mainly of chromium oxide. Oxygen from the atmosphere is normally able to form and maintain this passive layer. Contamination, surface defects and imperfections disturb the formation and repair of the chromium oxide layer and reduce the resistance to severe or local corrosion. Therefore it is very important to test if your stainless steel is still passive to prevent corrosion and damage. The measure of passivation of stainless steel can be determined with a palladium chloride reagent. The reagent keeps color on good passivated stainless steel. A black spot will appear when the surface has not been passivated correctly. Various qualities of passivation will give graduations of grey shades, ranging from light (acceptable) to dark (unacceptable).

**The RXSOL Passivation Test Kit contains:-**

- Palladium Chloride Reagent (30ml drop bottle)
- Dematerialized Water (0.5 liter)
- Squeeze Bottle (500 ml)
- Latex Gloves (10 pcs)
- Non woven cleaning pads (5 pcs)
- Instruction Manual

Dimensions: 16 x 18 x 20

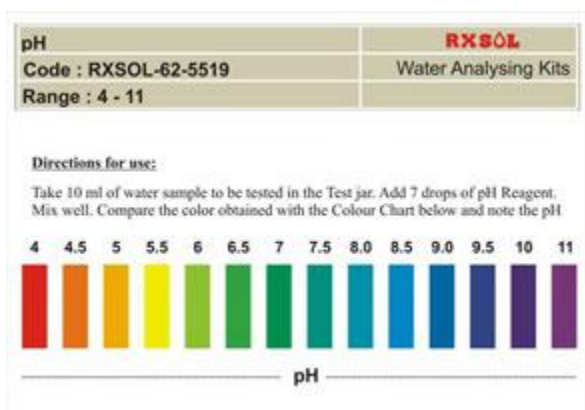
pH Test Kit

Code: - RXSOL-62-5519

Range: - 4-11 as pH

SKU: - RXSOL-62-5519

Application: -



Direction to use:-

1. First take 5 ml water sample to be tested in the jar.
2. add 4 drops of pH reagent mix well
3. now place this test jar on the color card(see back side) match color in the test jar with different printed colors (view from top side vertically downwards)
4. note down the ph of the sample after color comparison

Hydrazine Test Kit:-

Water Analyzing Kits Hydrazine

Range : -0.5, 0.1, 0.2, 0.4, 0.5, & 0.75 ppm as N H₂ 4

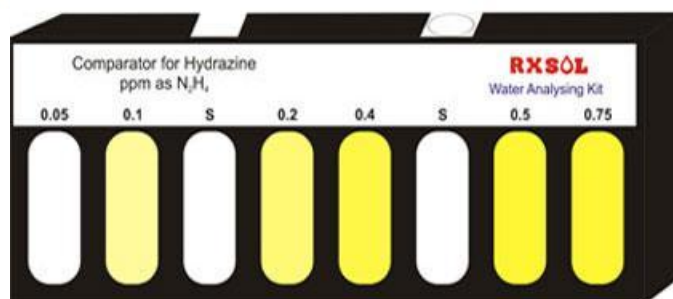
Alias: -Nalco MO 354 / Eliminox / Hydrazine Reagent

SKU:- RXSOL-62-5504-02-REG

Application: -

Directions for use :-

1. Take 5 ml of sample to be tested in the Test jar.
2. Add 40 drop (2ml) of Reagent HZ-1. Mix well
3. Add 2 micro spoon full of Reagent HZ-2. Mix well up to provider dissolves Completely. Wait for 10 minutes.



4. Now rinse the empty comparator tube with above solution and will up to the half level of the comparator tube.
5. Insert this tube in sample slot of comparator.
6. Compare the developed color with standard comparator colors.
7. Note down the ppm level of Hydrazine as N H₂ 4

REAGENT:-NITRITE, CHLORIDE, pH, ALKALINITY

Alias: -

TEST KITS & REAGENT, Spectra 309, PH-CHLORIDE-NITRITE-HARDNESS, COOLING WATER TEST KIT

SKU:- RXSOL-62-5508



Application: -

NITRITE PROCEDURE FOR TEST (STEP WISE):-

1. Measure 1 ml of SAMPLE WATER in graduated TEST TUBE / CYLINDER, with the help of syringe / puppet and diluted with Distilled Water up to 10 ml.
2. Add 1-2 drops of RXSOL TK5 and mix with the stirring rod, to obtain ORANGE / light reddish color.
3. Add RXSOL TK6 drop by drop , mixing with the stirring rod until For endpoint ORANGE to BLUE / GREENISH color just appears / develop.

Each DROPS is equivalent to 50 PPM of NO2

CALCULATION:- 50 X Number of DROPS of TK6

CHLORIDE PROCEDURE FOR TEST (STEP WISE):-

1. Measure 15 ml of SAMPLE WATER in graduated TEST TUBE / CYLINDER
2. Add 1-2 drops of RXSOL TK1 and mix with the stirring rod, If sample turns red / PINK then follows 3rd step otherwise if sample remains colorless proceed to step 4.
3. Add RXSOL TK2 drop by drop , mixing with the stirring rod until color just disappears.
4. Add 3 drops of RXSOL TK3 and mix with stirring rod , the sample will turn YELLOW.
5. Add RXSOL TK4 carefully by counting drop by drop and mixing thoroughly until a light reddish / pink / brown color develops.

RESULT: - Each DROPS is equivalent to 8 PPM of CHLORIDES

PROCEDURE FOR TOTAL ALKALINITY:-

Measure 10 ml of SAMPLE WATER in graduated TEST TUBE / CYLINDER

Add 1-2 drops of **RXSOL TK7** and mix with the stirring rod , If sample turns red / PINK (which indicates presence of p-Alkalinity) then follows 3rd step otherwise if sample remains colorless (Record p-Alkalinity = 0) then proceed to STEP- 4.

Add **RXSOL TK9** drop by drop (by counting), mixing with the stirring rod until color just disappears. Each drop is equivalent to 15 ppm of p-Alkalinity, expressed as CaCO_3

Add 2-3 drops of **RXSOL TK8** and mix with stirring rod, the sample will turn to BLuish-GREEN.

Add **RXSOL TK9** carefully by counting drop by drop and mixing thoroughly until a light reddish (salmon) pink color develops.

RESULT:-Each DROPS is equivalent to 25 PPM of Alkalinity

Description:-

water contaminated with bacteria is a major cause of water born diseases in humans enteric diseases are caused by these tiny menaces. Chloriform test kit water from all kinds of sources vise taps fitter's purifiers coolers. storage tanks rivers pound springs etc this extremely simply and convenient test can be carried out by anybody any where i.e. homes offices ,factories shops banks, hospitals , school ,etc.

7. if color does not change the water is potable
8. when color changes to yellow the water is not potable

**Procdure:-**

1. media pouches & sterile bottle
2. cut open both the pouches carefully
3. pour the contents of both pouches into the bottle
4. pour water up to the red arrow mark
5. keep in a warm place for 18 to 24 hours
6. then observe the color of the liquid in the bottle

REAGENT:-

1. Color Comparator Cube
2. Chlorine Reagent 1
3. Chlorine Reagent 2
4. Chlorine Reagent 3

Method:- colorimetric, DPD, with color card and comparator block with long test tubes 0.010 - 0.025 - 0.045 - 0.06 - 0.08 - 0.10 - 0.15 - 0.20 - 0.30 Aqua quant the test can be used for the determination of free chlorine. The chlorine concentration can be measured semi quantitatively by visual comparison of the color of the measurement solution with the color fields of the color card.

Specifications:-

Range	0.0 to 2.5 mg/L (ppm) Chlorine
Smallest Increment	0.5 mg/L (ppm) Chlorine
Analysis Method	Colorimetric
Number of Tests	50 (average)
Case Dimensions	220x145x55 mm (8.7x5.7x2.1")

Significance and Use:-

In pools and drinking water supplies, chlorination serves to kill or deactivate disease-producing microorganisms. It can also improve water quality by reacting with ammonia, iron, sulfide and some organic substances. However, an excess concentration of chlorine in water can produce adverse conditions, such as formation of carcinogenic chloroform or other toxins. To maximize

the purpose for chlorination and minimize any adverse effects, it is essential to monitor the chlorine levels closely. The Hanna Chlorine Test Kit determines the Total Chlorine concentration in water via a color cube. This makes the test kit practical for field use. No iodine or bromine can be present for this test to work properly.

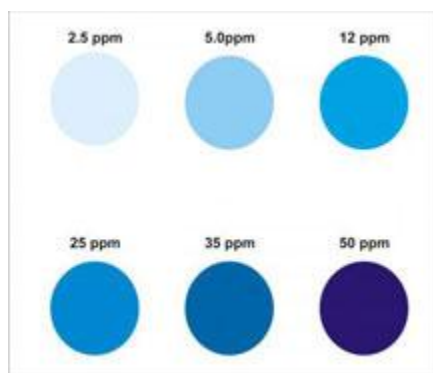
Chemical Reaction:-The addition of chlorine to water produces hydrochloric and hypochlorous acids. The hypochlorous acid acts as the disinfectant and bleaching agent. The formation of chloramines and nitrogen trichloride will occur if ammonia is present. These are known as bound chlorine. Total chlorine is measured by a colorimetric method. The reaction is buffered at approx. 6.3 pH; in presence of an excessive quantity of iodide ions, the DPD (N,N-diethyl pphenylenediamine) is oxidized by chlorine producing a reddish color. The color intensity of the solution determines the total chlorine concentration.

Instructions

1. Add 5 drops of Chlorine Reagent 1, 2 drops of Chlorine Reagent 3 and 3 drops of Chlorine Reagent 2 to the color comparator cube.
2. Fill the color comparator cube with sample to the 5mL mark.
3. Replace the cap and mix by carefully swirling the cube in tight circles and inverting it several times.
4. Determine which color matches the solution in the vessel and record the results in mg/L (ppm) total chlorine.

Why Test for Phosphate?

Phosphate (PO_4^{3-}) enters the aquarium from fish and invertebrate waste and decaying organic matter, such as dead algae and uneaten fish food. Water treatment facilities may add phosphate to tap water to prevent pipe corrosion and reduce concentrations of heavy metals in drinking water. Some salt mixes also contain phosphates. Excess phosphate may lead to algae blooms. In saltwater aquariums, phosphate precipitates dissolved calcium (Ca^{2+}) and magnesium (Mg^{2+}) ions, inhibiting the growth of hard corals and other reef-building organisms.



Application:-

This is applicable to laboratory analysis particularly in the determination of water pollution. Such an analytical test may be either qualitative or quantitative. This test kit reads the total phosphate level in parts per million (ppm), which are equivalent to milligrams per liter (mg/L) from 0 - 50.0 ppm (mg/L).

Testing Procedure: - A Quantitative method to determine the amount of phosphate present in samples such as boiler feed water is as follows

1. Rinse a clean test tube with water being tested.

2. Fill the test tube with 2.5 ml of water to be tested (to the line on the tube)
3. Holding the bottle vertically, add 20 drops from RXSOL TK LP1 solution. Cap the test tube and shake vigorously for 5 seconds.
4. Now, holding the bottle vertically, add 5 drops from RXSOL TK LP2 Test Solution . Note: RXSOL TK LP2 contains a very thick solution and may require increased pressure to release drop
5. Cap and shake the test tube vigorously for 5 seconds.
6. Wait 3 minutes for color to develop.
7. Rinse the 10 ml glass jar with above solution & fill it up to 10 ml mark.
8. place the glass test jar on color card & match with various shade of color .
8. Read the test results by comparing the color of the solution to the appropriate Phosphate Color Card (choose either Freshwater or Saltwater). The tube should be viewed in a well light area against the white area of the card. The closest match indicates the ppm (mg/L) of total phosphate (PO_4^{3-}) in the water sample. Rinse the test tube with clean water after use.

Dose:-

GENERAL TIPS: --- A small amount of the sample is acidified with Concentrated Nitric Acid to which a little ammonium molybdate is added. The presence of Phosphate Ions is indicated by the formation of a bright yellow layer.

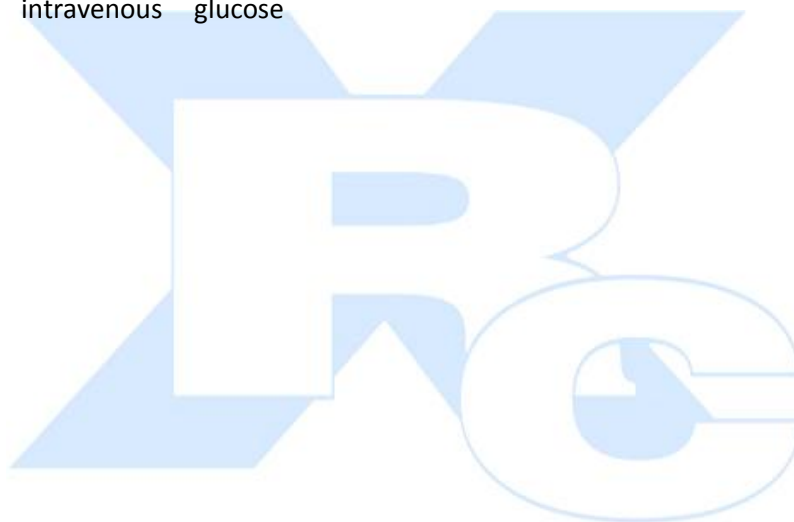
Note:

Abnormally high levels of phosphate can lead to organ damage due to calcification (calcium phosphate deposits in organs, such as the kidneys). Phosphate levels are normally higher in young children

than in adults because their bones are actively growing. Low phosphate levels in children can inhibit bone growth. Very low levels of phosphate are rare but require swift medical attention.

Soft drinks and pre-packaged food items are high in phosphate content, sometimes as phosphoric acid, which some nutritionists believe contributes to over consumption of phosphorus.

Test results may be affected by the use of enemas and laxatives containing sodium phosphate, excess Vitamin D supplements , and by intravenous glucose administration.



VIEW OUR SERVICES AT ALL MAJOR PORT OF INDIA OR U.A.E.

