

## Thermo Scientific Richard-Allan Scientific Isopropyl Alcohol Instructions for Use

### For in vitro diagnostic use.

### For the preparation of pathology specimens.

Thermo Scientific™ Richard-Allan Scientific™ Isopropyl Alcohol is specifically designed for tissue processing and staining of histological and cytological specimens. The product is a clear, colorless reagent that is highly quality controlled. Precaution should be taken when handling Isopropyl Alcohol. Protective gloves should be worn and work should be performed in a ventilated area. Isopropyl Alcohol can be used with both open and closed tissue processors. It is also compatible with all manual staining procedures and automatic stainers. Isopropyl Alcohol is a flammable product and must be stored in a flammable fire cabinet.

### Instructions For Use – Standard Processing

In standard tissue processing, Isopropyl Alcohol has shown best results on closed tissue processors when heat is not used during the normal dehydrating process. Vacuum has been viewed as an asset during all phases of tissue processing, including dehydration. A typical tissue processing schedule would include one station of 80% Isopropyl Alcohol (or Thermo Scientific Pen-Fix), two stations of 95% Isopropyl Alcohol, and three stations of Absolute Isopropyl Alcohol. The time in each Isopropyl Alcohol station should be approximately 45 minutes for a normal, multiple tissue type and thickness processing run. Isopropyl Alcohol is not recommended for use in the cleaning cycle of a closed tissue processor.

The laboratory should develop a product rotation and change out schedule that adheres to the policies of their department.

#### Protocols

The following tissue processing schedule is recommended for the average hospital surgical load.

Station	Solution	Time
1	10% Neutral Buffered Formalin	holding
2	10% Neutral Buffered Formalin	1 hour
3	Pen-Fix™ or 80% Isopropyl Alcohol	45 minutes
4	95% Isopropyl Alcohol	45 minutes
5	95% Isopropyl Alcohol	45 minutes
6	Absolute Isopropyl Alcohol	45 minutes
7	Absolute Isopropyl Alcohol	45 minutes
8	Absolute Isopropyl Alcohol	45 minutes
9	Clearing Reagent	1 hour
10	Clearing Reagent	1 hour
11	Paraffin	1 hour
12	Paraffin	1 hour

**Note:** This procedure may not fit every situation. Modifications may be necessary.

When small biopsy or thin tissue specimens (less than 2 mm in thickness) are processed separately, the following tissue processing schedule is recommended. Tissues are assumed to be fixed. If not, stations 1 and 2 should utilize 10% Neutral Buffered Formalin for a minimum of 30 minutes each.

Station	Solution	Time
1	10% Neutral Buffered Formalin	(30 minutes)
2	10% Neutral Buffered Formalin	(30 minutes)
3	Pen-Fix or 80% Isopropyl Alcohol	10 minutes
4	95% Isopropyl Alcohol	10 minutes
5	95% Isopropyl Alcohol	10 minutes
6	100% Isopropyl Alcohol	10 minutes
7	100% Isopropyl Alcohol	10 minutes
8	100% Isopropyl Alcohol	10 minutes
9	Clearing Reagent	15 minutes
10	Clearing Reagent	15 minutes
11	Paraffin	20 minutes
12	Paraffin	20 minutes

**Note:** This procedure may not fit every situation. Modifications may be necessary.

### Instructions For Use – Xylene-Free Tissue Processing

Isopropyl Alcohol can be used for xylene-free processing. As in traditional tissue processing, vacuum has been viewed as an asset during all phases of tissue processing, including dehydration. A typical xylene-free tissue processing schedule would include six stations of absolute Isopropyl Alcohol. The time in each Isopropyl Alcohol station should be approximately 30 or 45 minutes for a normal, multiple tissue type and thickness processing run.

The laboratory should develop a product rotation and change out schedule that adheres to the policies of their department.

#### Protocols

The following tissue processing schedule is recommended for the average hospital surgical load.

Station	Solution	Time
1	10% Neutral Buffered Formalin	holding
2	10% Neutral Buffered Formalin	1 hour
3	Absolute Isopropyl Alcohol (Temp 35/45° C)	30 minutes
4	Absolute Isopropyl Alcohol (Temp 35/45° C)	30 minutes
5	Absolute Isopropyl Alcohol (Temp 35/45° C)	30 minutes
6	Absolute Isopropyl Alcohol (Temp 35/45° C)	30 minutes
7	Absolute Isopropyl Alcohol (Temp 35/45° C)	30 minutes
8	Absolute Isopropyl Alcohol (Temp 35/45° C)	45 minutes
9	Paraffin	45 minutes
10	Paraffin	1 hour
11	Paraffin	1 hour

**Note:** This procedure may not fit every situation. Modifications may be necessary.

When small biopsy or thin tissue specimens (less than 2 mm in thickness) are processed separately, the following tissue processing schedule is recommended. Tissues are assumed to be fixed. If not, stations 1 and 2 should utilize 10% Neutral Buffered Formalin for a minimum of 30 minutes each.

Station	Solution	Time
1	10% Neutral Buffered Formalin	(30 minutes)
2	10% Neutral Buffered Formalin	(30 minutes)
3	Absolute Isopropyl Alcohol (Temp 35° C)	10 minutes
4	Absolute Isopropyl Alcohol (Temp 35° C)	10 minutes
5	Absolute Isopropyl Alcohol (Temp 35° C)	10 minutes
6	Absolute Isopropyl Alcohol (Temp 35° C)	10 minutes
7	Absolute Isopropyl Alcohol (Temp 35° C)	20 minutes
8	Paraffin	10 minutes
9	Paraffin	10 minutes

**Note:** This procedure may not fit every situation. Modifications may be necessary.

### Staining Instructions For Use

It is recommended that three stations of Absolute Isopropyl Alcohol for 1 minute each, followed by 1 station of 95% Isopropyl Alcohol for 1 minute be used for removing all xylene or xylene substitute prior to rehydration during staining.

After staining, complete dehydration of the slides must occur to prevent eosin leaching after cover slipping. It is recommended to use at least three stations of Absolute Isopropyl Alcohol for 1 minute prior to clearing the slides to ensure all water is removed from the tissue section. This will assure complete dehydration, which will allow for complete slide clearing, maximum slide clarity, and readies the slide for cover slipping. Note that any water left in the tissue section prior to cover slipping will result in eosin leaching from the tissue section.

The laboratory should develop a product rotation and change out schedule that adheres to the policies of their department.

#### Protocols

The following tissue staining schedule is recommended for the average hospital surgical load.



Station	Solution	Time
1	Clearing Reagent	3 minutes
2	Clearing Reagent	3 minutes
3	Clearing Reagent	3 minutes
4	Absolute Isopropyl Alcohol	1 minute
5	Absolute Isopropyl Alcohol	1 minute
6	Absolute Isopropyl Alcohol	1 minute
7	95% Isopropyl Alcohol	1 minute
8	Rinse in running tap water	Briefly
9	Deionized or distilled water	Rinse
10	Hematoxylin	Chosen Time
11	Running tap water	Rinse off excess stain
12	Acid Rinse	Chosen Time
13	Rinse in running tap water	30 seconds (agitate)
14	Bluing Reagent	1 minute
15	Rinse in running tap water	1 minute
16	95% Isopropyl Alcohol	Rinse
17	Eosin-Y	Chosen Time
18	Absolute Isopropyl Alcohol	1 minute
19	Absolute Isopropyl Alcohol	1 minute
20	Absolute Isopropyl Alcohol	1 minute
21	Clearing Reagent	1 minute
22	Clearing Reagent	1 minute
23	Clearing Reagent	1 minute

**Note:** This procedure may not fit every situation. Modifications may be necessary.

## Warnings and Precautions

See Safety Data Sheets for warnings and precautions, as well as EUH code definitions.  
See container label for warnings and precautions.

## Order Information

Product	Size	Qty.	REF
Isopropyl Alcohol	1 gal. (3.79 L)	4/cs.	9511
Isopropyl Alcohol	5 gal. (18.9 L) steel drum	Ea.	9515
Syntri Safeguard™*			
Isopropyl Alcohol	1.32 gal. (5 L) bottle	4/cs.	9517SS
Isopropyl Alcohol High Purity	1 gal. (3.79 L) bottle	4/cs.	9500-1
Isopropyl Alcohol High Purity	5 gal. (18.9 L) steel pail	Ea.	9500-5
Isopropyl Alcohol High Purity	55 gal. (208 L) drum	Ea.	9500-55

\*For further instructions on how to use the Syntri Safeguard products please consult the Thermo Scientific Revos user's manual

