

Slide Brite™ Xylene Substitute – Technical Memo

SOLUTION: 4 X 1 Gallon
Slide Brite™ Part ABSB-04

Additionally Needed:
Alcohol, Ethyl Denatured, 70% Part 10844
Alcohol, Ethyl Denatured, 95% Part 10842
Alcohol, Ethyl Denatured, 100% Part 10841
S Mounting Medium Part 6750

For storage requirements and expiration date refer to individual bottle labels.

APPLICATION:

Newcomer Supply Slide Brite™ Xylene Substitute provides a safe non-hazardous, non-toxic and odorless alternative to xylene that reduces health risks and improves personnel safety in the laboratory. It is gentle on tissues while enhancing nuclear detail, does not cause brittleness, tissue shrinkage, adverse morphology changes or interfere with immunohistochemical (IHC) staining.

Classified as an aliphatic hydrocarbon, Slide Brite™ Xylene Substitute is of high purity, fast drying, non-irritating, and non-flammable with a flash point of 61°C/142°F, compared to a 29°C/84°F flash point of xylene. Hazardous or flammable storage and vapor monitoring is not required with this safe alternative. Slide Brite™ will require more frequent changes when compared to xylene reagents.

Slide Brite™ is compatible for use on tissue processors, automated slide stainers and for manual coverslipping, but is not recommended for use on automated slide coverslippers. Refer to manufacturer specifications for recommendations or any restrictions on the use of Slide Brite™ on manufacturer's instrumentation.

METHOD:

Fixation: Formalin 10%, Phosphate Buffered (Part 1090)
Technique: Paraffin or frozen sections

PROCESSING PROCEDURE:

- Proceed with tissue fixation and tissue processing dehydration steps following laboratory approved protocol.
- Clearing: recommendation of three Slide Brite™ clearing stations, 60 minutes each.
 - If using two clearing stations, time should be 90 minutes per station.
- Rotate, filter and/or replace Slide Brite™ stations daily or after processing approximately 1000 blocks.
- The use of Slide Brite™ as a clearing agent in tissue processing schedules should be tested and optimized prior to standard use.
- Refer to suggested Slide Brite™ Routine Tissue Processing Schedule on Page 2.

STAINING PROCEDURE:

- Optimal results are obtained by placing warm slides from slide dryer/oven directly into Slide Brite™.
- Deparaffinize warm slides/sections thoroughly in three changes of Slide Brite™, 3 minutes each. Hydrate through two changes each of 100% and 95% ethyl alcohols, 10 dips each. Wash well with distilled water.
 - See Procedure Notes #1, #2 and #3.
 - For frozen sections; fix per staining protocol and proceed to Step #3.

- Proceed with laboratory approved staining protocol.
- Dehydrate in two changes each of 95% and 100% ethyl alcohol. Clear in four changes of Slide Brite™, 2 minutes each; coverslip with S Mounting Medium.
 - See Procedure Note #4.
- Refer to suggested Slide Brite™ Staining Procedure on Page 2.

PROCEDURE NOTES:

- Exposure to Slide Brite™ in deparaffinization and clearing steps may require longer timings than that of xylene.
- Due to saturation rates, Slide Brite™ will require more frequent changes when compared to xylene.
- Any water contamination that may occur will sit on top of the Slide Brite™ solution. The presence of water can be minimized by the use of Hydrosorb-X™ Water Absorbing Packets (Part STHXP) or by decanting water off.
- S Mounting Medium (Part 6750) is the recommended mounting medium for use with Slide Brite™.
 - Test Slide Brite™ compatibility with other mounting mediums prior to use. If a mounting medium displays any separation or is not readily miscible when exposed to Slide Brite™, it is not compatible.
- Slide Brite™ will not remove adhered coverslips as well as xylene.
- Refer to SDS for information on proper disposal of Slide Brite™.

REFERENCES:

- Dapson, Janet Crookham, and Richard W. Dapson. *Hazardous Materials in the Histopathology Laboratory: Regulations, Risks, Handling and Disposal*. 4th ed. Battle Creek, MI: Anatech, 2005. 150-155, 235.
- Wynnchuk, Maria. "Evaluation of Xylene Substitutes for Paraffin Tissue Processing." *The Journal of Histotechnology* 17.2 (1994): 143-149.
- Modifications developed by Newcomer Supply Laboratory.

Slide Brite™ Routine Tissue Processing Schedule

Station	Solution/Reagent	Heat	Vacuum	Time
1	10% Phosphate Buffered Formalin	Off	Off	90 Minutes
2	10% Phosphate Buffered Formalin	Off	Off	90 Minutes
3	70% Alcohol, Ethyl Denatured	Off	Off	30 Minutes
4	95% Alcohol, Ethyl Denatured	Off	Off	40 Minutes
5	100% Alcohol, Ethyl Denatured	Off	15 mm Hg	50 Minutes
6	100% Alcohol, Ethyl Denatured	Off	15 mm Hg	40 Minutes
7	100% Alcohol, Ethyl Denatured	Off	15 mm Hg	40 Minutes
8	Slide Brite™	Off/On 38°C	15 mm Hg	60 Minutes
9	Slide Brite™	Off/On 38°C	15 mm Hg	60 Minutes
10	Slide Brite™	Off/On 38°C	15 mm Hg	60 Minutes
11	Paraffin	60°C	15 mm Hg	120 Minutes
12	Paraffin	60°C	15 mm Hg	60 Minutes

Slide Brite™ Routine Tissue Processing Notes:

- When using only two clearing stations, increase the time from 60 minutes to 90 minutes per station (Steps #8 to #10).
- Rotate, filter and/or replace Slide Brite™ solutions daily or after processing approximately 1000 blocks.

Slide Brite™ Staining Procedure

Step	Solution/Reagent	Time
1	Slide Dryer/Oven 58°C-60°C	8 to 10 Minutes
2	Slide Brite™	3 Minutes
3	Slide Brite™	3 Minutes
4	Slide Brite™	3 Minutes
5	100% Alcohol, Ethyl Denatured	30 Seconds/10 Dips
6	100% Alcohol, Ethyl Denatured	30 Seconds/10 Dips
7	95% Alcohol, Ethyl Denatured	30 Seconds/10 Dips
8	95% Alcohol, Ethyl Denatured	30 Seconds/10 Dips
9	Distilled Water Rinse	30 Seconds Minimum
10	Proceed with Laboratory Approved Staining Protocol.	
11	95% Alcohol, Ethyl Denatured	30 Seconds/10 Dips
12	95% Alcohol, Ethyl Denatured	30 Seconds/10 Dips
13	100% Alcohol, Ethyl Denatured	30 Seconds/10 Dips
14	100% Alcohol, Ethyl Denatured	30 Seconds/10 Dips
15	Slide Brite™ Clearing Agent	2 Minutes
16	Slide Brite™ Clearing Agent	2 Minutes
17	Slide Brite™ Clearing Agent	2 Minutes
18	Slide Brite™ Clearing Agent	2 Minutes
19	Coverslip with S Mounting Medium	

Slide Brite™ Staining Procedure Notes:

- For best deparaffinization results, do not allow slides to cool after removing from slide dryer/oven. Place warm slides directly from slide dryer/oven into Slide Brite™ (Step #2).
- To achieve best coverslipping results, S Mounting Medium (Part 6750) is the recommended mounting medium for use with Slide Brite™ (Step #19).