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Part ABSB-04
Revised March 2024

# 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 |
| Choice Mounting Medium | Part 1032 |

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

## APPLICATION:

Newcomer Supply Slide Brite™ Xylene Substitute is classified as an aliphatic hydrocarbon that provides a safe alternative to xylene, reduces risks and improves personnel safety in the laboratory. Benefits of Slide Brite™ include:

- Odorless, non-hazardous, non-irritating and fast drying.
- Gentle on tissue and enhanced nuclear detail.
- No tissue brittleness, shrinkage or adverse morphologic changes.
- Compatible with IHC staining.
- Does not require hazardous/flammable storage.
- Flash point of 61°C/142°F (29°C/84°F flash point of xylene)
- No vapor monitoring.
- Compatible on tissue processors and staining systems.

## METHOD:

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

## PROCESSING PROCEDURE:

1. Refer to Slide Brite™ Tissue Processing Schedule on Page 2.
2. Use three Slide Brite™ clearing stations, 60 minutes each.
    a. *For two clearing stations, allow 90 minutes per station.*
3. Rotate, filter and/or replace Slide Brite™ stations daily or after processing approximately 1000 blocks.
4. Test and optimize Slide Brite™ as a clearing agent in tissue processing schedules prior to standard use.

## STAINING PROCEDURE:

1. Refer to Slide Brite™ Staining Procedure on Page 2.
2. For best deparaffinization results, place warm slides directly from dryer/oven into Slide Brite™.
3. Deparaffinize warm slides 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.
    a. *See Procedure Notes #1, #2 and #3.*
4. Proceed with staining protocol.
5. Dehydrate in two changes of 95% and three changes of 100% ethyl alcohol. Clear in four changes of Slide Brite™.
6. Coverslip with Choice Mounting Medium (Part 1032).
    a. *See Procedure Note #4.*
7. Test and optimize Slide Brite™ in staining procedures and automated staining systems prior to standard use.

## PROCEDURE NOTES:

1. Deparaffinization and clearing steps may require longer timings then xylene.
2. Slide Brite™ requires more frequent changes compared to xylene.
3. Any water contamination will layer on top of Slide Brite™.
    a. *Use Hydrosorb-X™ Water Absorbing Packets (STHXP) to minimize presence of water.*
4. Test Slide Brite™ compatibility with other mounting mediums prior to use.
    a. *If mounting medium displays separation or is not readily miscible, it is incompatible with Slide Brite™.*
5. Slide Brite™ is not recommended for automated coverslippers.
6. Slide Brite™ will not remove adhered coverslips as well as xylene.
7. Refer to manufacturer's specifications on the use of Slide Brite™ on all instrumentation.

## REFERENCES:

1. 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.
2. Wynnchuk, Maria. "Evaluation of Xylene Substitutes for Paraffin Tissue Processing." *The Journal of Histotechnology* 17.2 (1994): 143-149.
3. Modifications developed by Newcomer Supply Laboratory.

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# Slide Brite™ Routine Tissue Processing Schedule

| Station | Solution/Reagent | Heat | Vacuum | Time |
|---|---|---|---|---|
| 1 | Formalin 10%, Phosphate Buffered | Off | Off | 90 Minutes |
| 2 | Formalin 10%, Phosphate Buffered | 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:**

1. When using only two clearing stations, increase time from 60 minutes to 90 minutes per station (Steps #8 to #10).
2. 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 | |
| 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 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 | 1 Minute |
| 15 | 100% Alcohol, Ethyl Denatured | 1 Minute |
| 16 | Slide Brite™ Clearing Agent | 1 Minute |
| 17 | Slide Brite™ Clearing Agent | 1 Minute |
| 18 | Slide Brite™ Clearing Agent | 2 Minutes |
| 19 | Slide Brite™ Clearing Agent | 2 Minutes |
| 20 | Coverslip with Choice Mounting Medium | |

**Slide Brite™ Staining Procedure Notes:**

1. For best deparaffinization results, place warm slides directly from dryer/oven into Slide Brite™ (Step #2).
2. Choice Mounting Medium (Part 1032) is the recommended mounting medium with Slide Brite™.