Hematoxylin (Delafield's) S014

**Intended Use:**
Hematoxylin (Delafield's) is used as staining solution for Blood films for spirochaetes, Protozoa and other purpose.

**Composition**

**Ingredients**
- Haematoxylin: 4.0 gm
- Alcohol 95%: 25.0 ml
- Saturated ammonium alum solution: 400.0 ml
- Glycerine: 100.0 ml
- Methyl alcohol: 100.0 ml

**Directions**

**Procedure:**
1. Flame the slide and place in Xylene for 3-4 minutes. Repeat xylene treatment with agitation.
2. Dip in 100% absolute alcohol for 30-60 seconds. Next dip in 90%, 80% and in 70% absolute alcohol. Wash in tap water and rinse in distilled water.
3. Stain with Haematoxylin Delafields (S014) for 15 minutes. Wash in tap water.
4. Dip in 0.5%(v/v) hydrochloric acid.
5. Rinse in tap water for 30-60 seconds.
6. Dip in dilute ammonia water till section appears blue.
7. Wash in tap water and then rinse in 95% alcohol.
8. Agitate in eosin solution for 10-60 seconds. Drain stain solution.
9. Dip slide in 70% alcohol for 30-60 seconds.
10. Place in 95% alcohol for 30-60 seconds.
11. Place in absolute alcohol 2 changes (30-60 seconds).
12. Place the slide twice in xylene for 30-60 seconds.
13. Drain excess xylene and mount on DPX or Canada balsam with a cover slip.

The first 2 steps of the procedure are collectively referred to in all staining procedures as “deparaffinize.” The last 3-8 steps are referred to in all staining methods as “dehydrate, clear, and mount.”

**Principle and Interpretation**

Haematoxylin - Eosin is the most commonly used stain, which is specific for certain substances of diagnostic importance. Here, acid reacting components of the cell combine with alkaline dyes and the alkaline area react with acid dyes. This stain is available for amyloid, lipids, inorganic substances such as iron and calcium, pigments like melanin and hemosiderin, carbohydrates and mucopolysaccharides.

**Type of specimen**
Clinical samples: Blood sample

**Specimen Collection and Handling**
For clinical samples follow appropriate techniques for handling specimens as per established guidelines (1,2).

After use, contaminated materials must be sterilized by autoclaving before discarding.

**Warning and Precautions**

In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Please refer disclaimer Overleaf.
Limitations
1) To preserve morphology of cells, films must be fixed without delay and the films should never be left unfixed for more than a few hours.
2) Methanol used as fixative should be completely water free. As little as 1% water may affect the appearance of the films and a higher water content causes gross changes.
3) The red cells will also be affected by traces of detergent on inadequately washed slides.
4) Sometimes when thick films are stained they become overlaid by a residue of stain or spoil by the envelopes of the lysed red cells.

Performance and Evaluation
Performance of the stain is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control
Appearance
Violet coloured solution.
Clarity
Clear without any insoluble particles.

Microscopic Examination
Blood staining is carried out where hematoxylin is used as one of the stains and staining characteristics are observed under microscope by using the oil immersion lens.

Results
Nuclei : blue
Cytoplasm : pink

Storage and Shelf Life
Store between 10 - 30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

Disposal
User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (3,4).

Reference
6. Staining Procedures;Fourth Edition ;Williams& Wilkins;Baltimore

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### Technical Data

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