PROGRAM Standard Operating Procedure	
Title: HEM10003 XN-1000 Reagent General Information	Policy Number: 15-149-V1
Program Name: NTHSSA Laboratory Services – Core Laboratory	
Applicable Domain: LAB, DI and Pharmacy Services	
Additional Domain(s): NA	
Effective Date: *Day/Month/Year*	Next Review Date: *Day/Month/Year*
Issuing Authority: Director, Laboratory and Diagnostic Imaging Services	Date Approved: *Day/Month/Year*
Accreditation Canada Applicable Standard: Biomedical Lab Services	
Accrediting Body and Standard: Accreditation Canada Qmentum	

GUIDING PRINCIPLE:
N/A

PURPOSE/RATIONALE:
This document is to be used for general reagent information for the XN-1000.

DEFINITIONS:
N/A

SCOPE/APPLICABILITY:
Medical Laboratory Technologists

SPECIAL SAFETY PRECAUTIONS:

Personal protective equipment should be worn at all times to avoid contact to hazardous material.

Avoid contact with skin and eyes. In case of skin contact, flush the area with water. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice immediately. Contact with acids liberates toxic gas are irritating to eyes and skin. Keep out of the reach of children. Avoid contact with eyes.

Refer to MSDS for complete information.

REAGENTS:

CELLPACK DCL is a whole blood diluent (sheath fluid) for flow cell cytometry. This reagent is used in measuring the numbers and sizes of RBC and platelets by hydro dynamic focusing (DC Detection). With the addition of the specified lyse reagent for hemoglobin concentration determination, it can also be used to analyze hemoglobin concentration.

CELLPACK DFL is a whole blood diluent used in combination with Fluorocell RET for the analysis of reticulocytes or with Fluorocell PLT for the analysis of platelets by flow cytometry method using a semiconductor laser.

SULFOLYSER is a lysing reagent for the automated determination of hemoglobin concentration of blood by SLS method.

Lysercell WNR is used with Fluorocell WNR to hemolyze red blood cells. Combined they differentiate white blood cells (non-basophil), basophils, and nucleated red blood cells.

Fluorocell WNR is used to stain the nucleated cells in diluted and lysed blood samples for determination of white blood cell count, nucleated red blood cell count and basophil count in blood.

Fluorocell WDF is used to stain leukocytes in diluted and lysed blood samples for determination of a 4-part differential count.

Fluorocell RET is used to stain the reticulocytes in diluted blood samples for the assay of reticulocyte count, reticulocyte percent and platelet count.

Fluorocell PLT is used to stain platelets in a diluted blood sample for the assay of platelet count.

Cell Clean Auto is a strong alkaline detergent used to clean hydraulic systems

CSC Cell Sheath (C) is a whole blood diluent used during hydrodynamic focusing to count and size RBC and PLT. It is also used with sulfolyser to determine hemoglobin concentration.

Lysercell WDF is used to lyse RBC's and then combined with Flourocell WDF for the enumeration and differentiation of WBC's (neutrophils, lymphocytes, monocytes and eosinophils).

REAGENT SPECIFICATIONS:

Brand name	Volume	Storage temp.	Usage temp.	Shelf life after opening	Composition
CELLPACK DCL	20 L	2 - 35°C	15 - 30°C	60 days	Sodium chloride 0.7% Tris buffer 0.2% EDTA-2K 0.02%
	10 L				
CELLPACK DST	20 L			60 days	Sodium chloride 15.7% Tris buffer 4.3% EDTA-2K 0.4%
	10 L				
	4 L				
CELLPACK DFL	1.5 L			60 days	Tricine buffer 0.17%
CELLSHEATH(C)	20 L	30°C or less		60 days	Sodium chloride 0.86% Boric Acid 0.10% Sodium tetraborate 0.02% EDTA-2K 0.02%
SULFOLYSER*	1.5 L	1 - 30°C		60 days	Sodium lauryl sulfate 1.7 g/L
	4 L			90 days	
	5 L				
Lysercell WNR	4 L	2 - 35°C		60 days	Organic quaternary ammonium salts 0.20% Nonionic surfactant 0.10%
Lysercell WDF	4 L			90 days	Organic quaternary ammonium salts 0.07% Nonionic surfactant 0.17%
Lysercell WPC	1.5 L			90 days	Anionic surfactant 0.03% Nonionic surfactant 0.12%
Fluorocell WNR	82 mL			90 days	Polymethine dye 0.005% Ethylene glycol 99.9%
Fluorocell WDF	42 mL			90 days	Polymethine dye 0.002% Methanol 3.0% Ethylene glycol 96.9%
Fluorocell RET	12 mL			90 days	Polymethine dye 0.03% Methanol 7.9% Ethylene glycol 92.0%
Fluorocell PLT	12 mL			90 days	Oxazine dye 0.003% Ethylene glycol 99.9%
Fluorocell WPC	12 mL			90 days	Polymethine dye 0.004% Ethanol 15.1% Ethylene glycol 84.8%
CELLCLEAN AUTO	4 mL	1 - 30°C		-	Sodium Hypochlorite (available chlorine concentration 5.0%)

PROCEDURE:

N/A

PERFORMANCE MEASURES:
N/A

CROSS-REFERENCES:
N/A

ATTACHMENTS:
N/A

REFERENCES:

Automated Hematology Analyzer XN series (XN-1000) Instructions for Use (North American Edition). Sysmex Corporation. Kobe Japan. May 2014

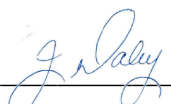
Sysmex XN-1000 RL App Automated Hematology Analyzers CLSI Procedure. Document 1184-LSS, Rev 1. Sysmex Corporation. Kobe Japan. April 2015

REVISION HISTORY:

REVISION	DATE	Description of Change	REQUESTED BY
1.0	30 Nov 18	Initial Release	K. Willson
1.1	14 Feb 24	Transferred to NTHSSA Template; Procedure reviewed	L. Howlett

APPROVAL:

March 18, 2024
Date



Director, Lab DI and Pharmacy Services