

NDMRB-RA-039

Risk Assessment: May Grünwald Giemsa Staining

Scope

Intended Use

May-Grünwald's eosin methylene blue and Giemsa's azure eosin methylene blue are intended to be used for staining of blood and bone marrow smears and cytological specimens, such as urine sediment or sputum. For staining of most histology specimen (mostly gastric sections) Giemsa is used.

Principle

The purple colour of cell nuclei, is due to molecular interaction between eosin Y and an azure B-DNA complex. The intensity of the staining depends on the azure B content and on the ratio azure B/eosin Y. The pH of the solutions, fixation and staining time can influence the staining result.

Composition

May-Grünwald is alcohol based and contains May-Grünwald's eosin methylene blue and methanol (>85%).
Giemsa is alcohol based and contains Giemsa's azure eosin methylene blue, methanol (>50%) and glycerol.

Name of assessor:	Tiphaine Bouriez-Jones	Date of Assessment:	Feb 2016	Review Date:	Every 3 years
--------------------------	------------------------	----------------------------	----------	---------------------	---------------

Risk Matrix:

Risk Matrix		Likelihood			
		High	Medium	Low	Negligible
Consequence	Severe	High	High	Medium	Effectively Zero
	Moderate	High	Medium	Medium/low	Effectively Zero
	Insignificant	Medium/Low	Low	Low	Effectively Zero
	Negligible	Effectively Zero	Effectively Zero	Effectively Zero	Effectively Zero

Risk Assessment:

Hazard (Cause and consequence)	Affected Groups	Existing controls	Risk	Further Action
May-Grünwald stain H225 Highly flammable liquid and vapour. H301 Toxic if swallowed. H311 Toxic in contact with skin. H331 Toxic if inhaled. H370 Causes damage to organs.	Staff, students and visitors	Wear laboratory coat, gloves, and safety glasses to be worn when handling, use in a fume hood at all times	Medium	All RA, SOP and COSHH are to be read and understood by all users before handling this chemical Waste collection to be arranged with the lab manager.
Giemsa stain H225 Highly flammable liquid and vapour. H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled. H370 Causes damage to organs.	Staff, students and visitors	Wear laboratory coat, gloves, and safety glasses to be worn when handling, use in a fume hood at all times	Medium	All RA, SOP and COSHH are to be read and understood by all users before handling this chemical Waste collection to be arranged with the lab manager.

Signed By Author:

Approved by (sign and print):

Reviewed by:

Review date: