

IVD IN VITRO DIAGNOSTIC MEDICAL DEVICE **CE**

NAME **GIEMSA REAGENT**

European Medical Device Nomenclature (EMDN) **W0103010301** **HISTO / CYTO STAINS**
(CELLULAR STAINS FOR MICROSCOPY)

Packaging available

453611	Giemsa Reagent	2.5 l bottle
453614	Giemsa Reagent	100 ml bottle
453616	Giemsa Reagent	500 ml bottle

Intended use

Hematology dye for the preparation of samples for examination by light microscopy.

Principle

The unequivocal evaluation of the morphological characteristics of blood cells depends on the chromatic framework, which is a function of the staining solution itself, the method chosen and its execution, as well as parameters such as the pH of the wash water. Giemsa staining is based on the differentiation of the eosin-binding (acidic) basic reactive cellular constituents staining itself orange-red, and the other acid-reacting components stained blue with methylene blue-blue (base) oxidation products.

Main components:

- METHANOL
- GIEMSA STAIN

Warnings and Precautions

The product is intended for specialized technical personnel.

The product is ready to use.

Carefully read the safety and precautionary statements on the label. Always consult the safety data sheet (accessible from the website at <https://www.carloerbareagents.com/cerstorefront/cer-fr>) which contains information on the risks posed by the product, the precautionary measures to be taken during use, first aid measures and response measures in the event of an accidental release.

Do not use if primary container is damaged.

Reagents are produced using uniform methods in accordance with bibliographic references and verified in accordance with quality control specifications.

Procedure

Depending on the pH of the water used, the colouring of Giemsa has great differences: an optimal colouring is achieved in 25 minutes, operating as indicated above. Acidic solutions strengthen eosin but weaken the blue color. Alkaline solutions enhance this color, but alter the tone of eosin, so there will be gray-blue tones that will not be significant. Therefore, the pH of the water should be checked in accordance with the procedure and the dilution of the dye should be carried out carefully in order to obtain a homogeneous mixture and avoid the formation of precipitates. Staining should be done with slides immersed vertically in the staining tank.

- 1) Air Dry Sample
- 2) Fix for 30 minutes with absolute ethanol
- 3) Dry and colour for 20 to 30 minutes with a fresh homogeneous solution consisting of 10 drops of Giemsa reagent and 10 ml of distilled water buffered at pH 7.2.
- 4) Rinse the sample by passing it through slightly acidified distilled water with 1% acetic acid and air dry.
- 5) Dry again, leaving it in an upright position and prepare the inclusion if necessary.

Results:



COMPONENT	COLOURING
Kernel	Red-Purple
Eosinophilic granulocytes	Red-Brown
Basophilic granulocytes	Blue
Neutrophil granulocytes	Red-Purple
Lymphocyte Protoplasma	Blue with possibly reddish-purple grains
Erythrocytes	Pink
Platelets	Blue with Purple Center
Nuclei of blood parasites and protozoa	Bright Red

Remark

If there is any doubt about the test result, repeat the above procedure

Stability

The product is stable under normal storage conditions.

There is no particular risk of reaction with other substances under normal conditions of use.

Shelf life of the product

The product has a shelf life of 2 years, in unopened packaging and properly stored.

Close the bottle after use.

After the first opening, the product can be used for 6 months or within the limit of the total shelf life.

Storage conditions

Products are packaged in appropriate containers, with a sealed cap; They should be kept tightly closed, away from light, in a cool, dry place.

Recommended temperature range for storage: 5-30°C

Caution: In case of precipitation of dyes, the solution can be restored by heating in a water bath for a few minutes at 60 °C; the formation of a "mirror" on the walls of the bottle indicates that the product has aged and therefore it is advisable to get rid of it.

Waste Disposal

For more information regarding disposal, please refer to the Safety Data Sheet. It is advisable to follow proper safety measures when handling, processing, and disposing of all clinical specimens, as pathogenic organisms may be present

References

Staining Procedures – Edited by G.Clark 4th Ed. – Williams & Wilkins Baltimore/London.

V.Mazzi, Manuale di Tecniche Istologiche ed Istochimiche – Piccin Editore Padova.

English Version

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