N,N-DMG Assay determination

1. Reagent and solution

A. Ice Acetic acid

B. Crystal violet indicator

c. Perchloric acid solution C≈0.1N

2. Conditions

The weighing of the sample must be carried out in a dry environment to prevent moisture absorption from affecting the analysis results.

3. Procedures

a. Take this product 0.3g DMG into conical flask ,precision weighing.

b. Add ice acetic acid 60ml,add crystal violet indicating liquid 3 drops,with perchloric acid (0.1MOL/L) titration to the solution green as the end point.

c. And the result of titration is corrected by blank test.

4.

$$W=\frac{C\times(V1-V2)\times 0.10312}{m}\times 100$$

W—DMG mass fraction，%；

C-The actual concentration of perchloric acid titration solution，mol/L；

V1—The volume of perchloric acid titration solution consumed by the sample，mL；

V2—The volume of perchloric acid titration solution consumed by blank，mL；

m— weight of sample,g

0.10312—Each 1ml perchloric acid titration solution (0.1MOL/L) is equivalent to 0.1031mg DMG.

N,N-DMG, Loss on drying determination

a. Dry the weighing bottle (10 × 15mm) at 105 ℃ to constant weight, and weigh (M1)

b. Take about 2.000g of this product in a weighing bottle and accurately weigh it (M2)

c. After drying at 105 ° C for 2 hours, take it out, cool it in a desiccator, and weigh it(M3).

$$X=\frac{M2-M3}{M2-M1}\times 100\%$$