

Iron-Qualitative Method



Research Products Company

A Division of McShares, Inc.
Salina, Kansas

Principle

- Ferric iron added to flour reacts with a thiocyanate (KSCN) reagent to form a red colored complex.
- A higher number of red spots and a deeper red color appear with enriched and fortified flour compared with untreated flour

Reagents



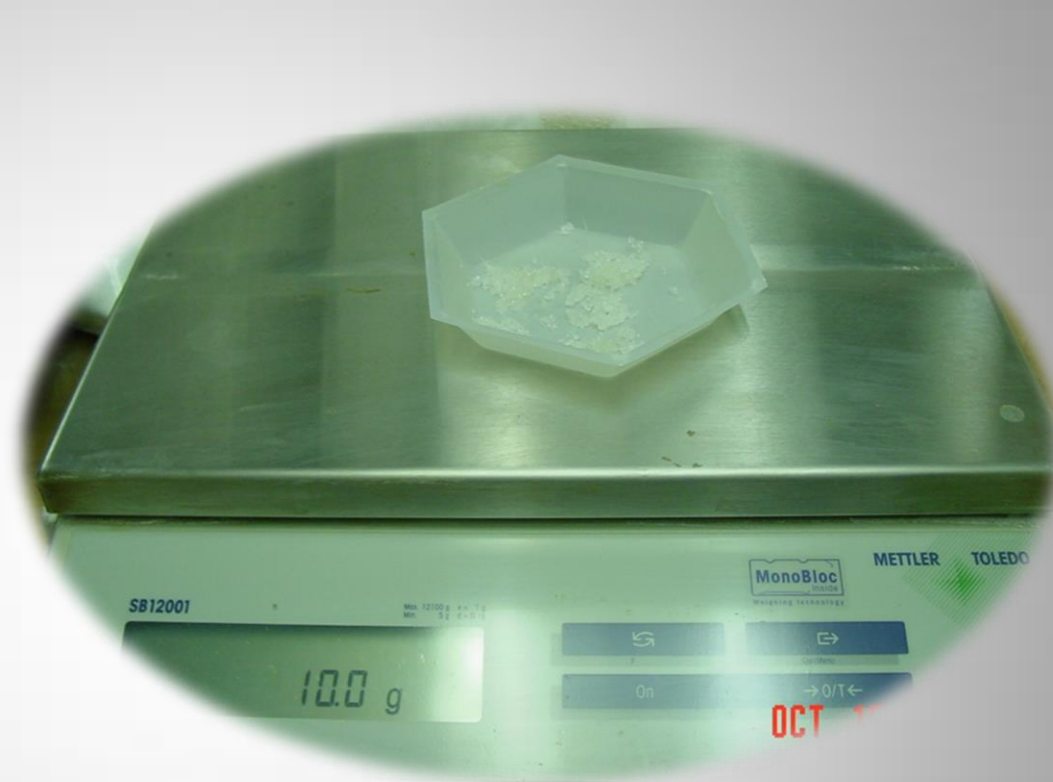
Reagents

- Potassium Thiocyanate
- 2 N HCL
 - 17ml concentrated HCL into 83ml water = 2N HCL
- 3% Hydrogen Peroxide

Procedure

1. Weigh out 10 grams KSCN
2. Dissolve in 100 ml water
3. Mix with equal volumes of 2N* HCL

* 2N HCL = 17ml
concentrated HCL
mixed with 83 ml water



Procedure

4. Slick untreated and enriched flour side by side
5. Drop 1 ml thiocyanate reagent on both slicks in amount sufficient to wet area 1 inch in diameter
6. If added iron compounds are present drop 1 ml 3% hydrogen peroxide solution over the same areas

Results in PPM



Un-Enriched



22 PPM



44 PPM



88 PPM

Results in MG/Pound



Un-Enriched



10 mg/pound



20 mg/pound



30 mg/pound

Thank You!!



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