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## **Testing Procedures for Indigo Granular**

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## Specifications and Method of Testing

Product : Indigo Granular

### 1.Specifications

Dark blue granular

### Testing Methods

#### 2.1 Procedure

Weigh about 0.5g of the sample and place it in a 50ml conical flask. Add 20ml of sulfuric acid and stir well with a glass rod. Then place the conical flask in a water bath and react at 80° C-90° C for 1.5h. After the reaction, the solution was cooled and transferred to a 500ml volumetric flask pre-filled with 100ml-150ml of distilled water. Wash the flask with water several times. The washing solution was transferred into a volumetric flask together, cooled to room temperature, diluted with water to the mark, and shaken. Pipette 25ml of this solution and place it in a 1000ml conical flask. Add 500ml of distilled water. Titrate with potassium permanganate standard solution. When titrating, stir with a magnetic stirrer to make the solution change from blue to green and from green to yellow. The end point is when the yellow light has green in it.

#### 2.2 Results and calculations

$$X = \frac{C \times V \times 1.5}{m} \times 100\%$$

Where,

C-----concentration of Potassium permanganate;

V----- volume of Potassium permanganate;

m -----mass of indigo granular

称取试样约 0.5g 置于 50ml 三角瓶中。加入 20ml 硫酸用玻璃棒搅拌均匀。然后将三角瓶置于水浴中，在 80℃-90℃ 下反应 1.5h。反应结束后，将溶液冷却后转移至预先加有 100ml-150ml 蒸馏水的 500ml 容量瓶中。用水多次洗涤三角瓶。洗涤液一同移入容量瓶中，冷却至室温，用水稀释至刻度，摇匀。移取此溶液 25ml 置于 1000ml 三角瓶中。加蒸馏水 500ml。用高锰酸钾标准溶液滴定。滴定时要用磁力搅拌器进行搅拌，使溶液由蓝变绿，由绿变黄。当黄光中带有绿色时即为终点。

计算公式:  $(C \cdot V \cdot 1.5) / m \cdot 100\%$

C-高锰酸钾浓度

V-高锰酸钾消耗

m-靛蓝质量