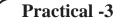
Label:		
Composition:		Storage: Store below 25 ^o C
50 ml contains:		protected from light, avoid
Iodine :		contact with metal.
		Mfg. Lic. No.:
Potassium iodide (KI) :		Batch No. :
Distilled water :	IODINE SOLUTION (B.P.)	Datch No
<u>Uses:</u>	50 ML	Mfg. date :
It is used for Hypothyroidism.	FOR ORAL USE ONLY.	Exp. Date :
Precaution:		MRP Rs :
Keep medicines away from		MRP Rs :
children.		(Inclusive of all taxes)
		Manhatad Bru
Manufactured By:		Marketed By:

Calculation:

Required quantity = Factor =



Date:	/	′/	·
2.4000	••••	•••••	

Aim: To prepare and submit 50 ml of Aqueous Iodine solution (I.P.).
Reference:
Requirements:
Apparatus/Equipment required:
Chemical required:
•

Theory:

Aqueous Iodine Solution, I.P. The full strength Lugol's iodine solution contains 5% w/v of iodine and 10% w/v of potassium iodide (KI) in purified water. Iodine is poorly soluble in water due to its non-polar nature. Addition of potassium iodide (KI) in concentration twice as of iodine helps to solubilize iodine. Ratio of KI : I_2 equal to 2:1. It is an antiseptic medication and disinfectant used for a number of purposes.

S. No.	Chemical Name	Quantity Given	Quantity Taken	Uses of Ingredients
		(100ml)	(Factor x Quantity given)	
1.	Iodine	5 gm		Antithyroid agent
2.	Potassium iodide (KI)	10 gm		Solubilizer
3.	Distilled/Purified water	q. s. 100 ml		Vehicle

Lugol's Iodine Solution Formulation Table (As per I.P.):

Procedure:

- Dissolve the potassium iodide in small amount of the distilled water to make concentrated solution of KI.
- Add slowly iodine crystals and keep on shaking the container (test tube), until these are dissolved. Then, add remaining amount of water to produce the required volume.
- \circ $\,$ Now, transfer the formulation to an appropriate container.

Note:- Iodine react with potassium Iodide to form water soluble polyiodide like potassium tri iodide (KI₃).

Method: Aqueous iodine solution prepared by complexation.

Storage: Store at controlled room temperature 15°-30°C, Keep tightly closed and iodine resistant container. Protect from light.

Uses: It is used for Hypothyroidism.

Observation and Evaluation:

Name of the Preparation	Test	Specification	Observation
	Description		
Aqueous Iodine solution	Colour		
(I.P.)	Odour		
	Volume		

Result: I have prepared and submit the______ in a neat and cleaned glass bottle and labelled it properly.

Note:-

- **1.** Aqueous iodine solution (**5%w/v**) : Source of Iodine for internal use.
- 2. Weak iodine solution (2%w/v) : Antiseptic for external use.
- 3. Strong iodine solution (10%w/v) : Antiseptic for external use.

Questions Bank

- 1. What is Aqueous iodine solution?
- 2. What is Hypothyroidism?
- 3. What is the use of KI in Lugol's iodine solution preparation?
- 4. Which method used for the preparation of aqueous iodine solution?
- 5. What is the antiseptic?
- 6. What is meaning of internal and external use?
- 7. Explain the meaning of polyiodide.
- 8. What is Antithyroid agent?
- 9. What is disinfectant?
- 10. What is iodine tincture?