WELCOME

TO



This is an Education Platform

We provide Free PDF Notes and Videos Classes for Pharmacy Students

Web Site http://www.fdspharmacy.in/

You tube https://www.youtube.com/channel/UC77iEsiuZolU4pB8WAJIR5Q

What app https://chat.whatsapp.com/IzSgXtFEvhS4LN5xhUgq5z

Telegram https://t.me/+cvxm17xSloA4MjVl

Face book https://www.facebook.com/Fdspharmacy-105764311994440/

E-mail fdspharmacyinfo@gmail.com

Diploma in Pharmacy 1st Year
Pharmaceutics
Experiment
To formulate sodium alginate gel

Aim:

To formulate sodium alginate gel as per Monograph standards and dispense with appropriate packaging and labelling.

Reference :

‘ Dr. Gupta G.D , Dr. Sharma Shailish , Dr. Sharma Neelam’ “Practical Manual of Pharmaceutics” Published by Nirali Prakashan, Page no 45 - 50

Apparatus and Materials Required :

0.1 M calcium chloride solution, 3 250-mLbeakers or flasks, 0.05 M copper(II) chloride solution, 250-mL Erlenmeyer flask, 2% sodium alginate solution, forceps, saturated sodium chloride solution, 100 ml jumbo pipet, distilled water and wash bottle, magnetic stirrer or stirring rod, balance. 0.1-g precision paper towels, and waste beaker of 1-L

Theory :

Sodium alginate (NaC,H,O6) is a linear polysaccharide alginic acid derivative made up of 1,4- B-d-mannuronic (M) and a-l-guluronic (G) acids. The most significant benefit of alginates in aqueous solutions is their liquid-gel behaviour. Alginate gel particles are a popular hydrocolloid gel particle because they are biocompatible, nontoxic, biodegradable, inexpensive, and easy to make. For various applications, the size and shape of the gel particles are critical.

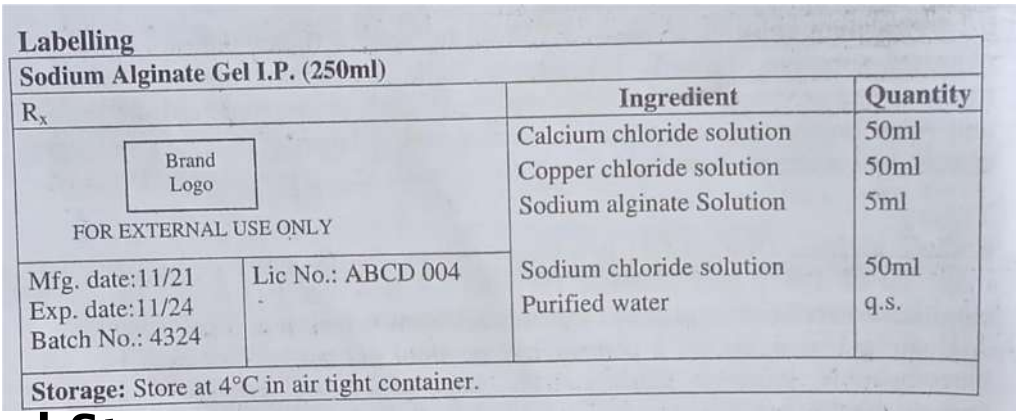
Formulation

S.No	Ingredients	Required Quantity
1)	0.1 M calcium chloride solution	50 mL
2)	0.05 M copper(II) chloride solution	50 mL
3)	2% sodium alginate solution	5 mL
4)	saturated sodium chloride solution	50 mL
5)	distilled water	q.s.

Procedure :

- The three beakers or flasks should be labelled as A, B, and C and approximately 100 mL of the appropriate solution should be added to each one.
- A pipet-full of sodium alginate solution should be drawn up into a clean. jumbo pipet. Then the pipet bulb should be squeezed slowly and the sodium alginate solution should be added in one continuous stream into the calcium chloride solution in Beaker A
- Step 2 should be repeated again, sodium alginate into the copper (II) chloride solution should be added in Beaker B.
- Wait for about 1-2 minutes for products to form.
- Several insoluble polymer "worms" should be removed gently from the solution in Beaker A with the help of cleaned forceps.
- Calcium alginate should be rinsed with distilled water from a wash bottle and the product should be placed on a paper towel. The texture, form, and appearance of calcium alginate should be observed.

Labelling :



Labelling

Sodium Alginate Gel I.P. (250ml)

R_x	Ingredient	Quantity
Brand Logo FOR EXTERNAL USE ONLY	Calcium chloride solution Copper chloride solution Sodium alginate Solution	50ml 50ml 5ml
Mfg. date:11/21 Exp. date:11/24 Batch No.: 4324 Lic No.: ABCD 004	Sodium chloride solution Purified water	50ml q.s.

Storage: Store at 4°C in air tight container.

Packaging and Storage :

Sodium alginate should be stored at 4°C in an airtight container.

Result :

The cetrimide cream was prepared, packaged and labelled.