

4. Materials

The list of chemicals and equipment used in the present study are mentioned in the Tables 4.1 and 4.2 respectively.

Table 4.1. List of chemicals used in the present study

S. No.	Drugs/Excipients/Chemicals	Supplier/Manufacturer
1	Rifampicin	Lupin Pharma Research Park, Pune
2	Isoniazid	Lupin Pharma Research Park, Pune
3	Super Tab 11SD	DFE Pharma, Bangalore
4	Glacial acetic acid	Merck Specialties Pvt. Ltd. , Mumbai
5	Hydrochloric acid	Himedia Labs Pvt Ltd., Mumbai
6	Methocel K 100M	Colorcon Asia Pvt. Ltd., Mumbai
7	Magnesium stearate	Himedia Labs Pvt Ltd., Mumbai
8	Barium sulphate	May and Baker Ltd., England
9	Polyox WSR 301	Colorcon Asia Pvt. Ltd., Goa
10	Potassium chloride	Merck Specialties Pvt. Ltd., Mumbai
11	Sodium dihydrogen orthophosphate	HiMedia Labs Pvt. Ltd., Mumbai
12	Sodium acetate	Spectrochem Pvt. Ltd., Mumbai
13	Sodium bicarbonate	Himedia Labs Pvt Ltd., Mumbai
14	Sodium hydroxide	Nice Chemicals Pvt. Ltd., Cochin
15	Talc	sd Fine Chem Ltd., Mumbai
16	Sodium alginate	Himedia Labs Pvt Ltd., Mumbai
17	Calcium chloride	Himedia Labs Pvt Ltd., Mumbai
18	Acetonitrile, HPLC grade	Merck Specialties Pvt. Ltd., Mumbai
19	Methanol, HPLC grade	Merck Specialties Pvt. Ltd., Mumbai
20	Ortho-phosphoric acid	Merck Specialties Pvt. Ltd., Mumbai

Table 4.2. List of equipment used in the present study

S. No	Instruments	Brand/Model	Supplier/Manufacturer
1	Automatic hardness tester	TH1050S	Labindia Analytical Instruments Pvt. Ltd., Thane
2	Differential scanning calorimeter	DSC-60	Shimadzu Corporation, Kyoto, Japan
3	Digital electronic balance	CPA225D	Sartorius AG, Germany
4	Magnetic stirrer	5 MLH-DX	Remi Equipments Ltd., Bangalore
5	Dissolution test apparatus	TDT081	Electrolab, Mumbai
5	Fourier transform spectrometer	FTIR-8300	Shimadzu Corporation, Kyoto, Japan
6	Friabilator	EF-1W	Electrolab, Mumbai
7	pH meter	System 361	Systronics, Mumbai
8	Tablet compression machine	Mini press-1	Rimek Instruments, Mumbai
9	Rotospin	-	Tarsons Products Pvt. Ltd., Kolkata
10	Stability chamber	ZEISS EVO 18	Carl Zeiss SMT Ltd., UK
11	UV-Visible Spectrophotometer	UV1601PC	Shimadzu Corporation, Kyoto, Japan
12	HPLC system	LC 2010A	Shimadzu Corporation, Kyoto, Japan
13	Analytical column	C ₁₈ reversed phase column	Grace, Columbia, US
14	MilliQ water purifier	DirectQ	Millipore India Pvt. Ltd., Bangalore.
15	Bath sonicator	Equitron	Medica Instrument Mfg. Co., Mumbai
16	Pelletizer	Extruder and spherodizer	Umang Pharmatech Pvt. Ltd., Mumbai
17	Phama R & D spray coater	Deluxe model	Ideal Cures Pvt. Ltd., Mumbai
18	Hot air oven	Osworld	J. R. Industrial Corpn, Mumbai
19	Tray dryer	-	Class Engineers Pvt. Ltd., Bangalore
20	Double cone blender	Kalweka-VDM-4	Karnavathi Engineering Ltd., Mehsana, Gujarat