

Area specific mineral mixture formulations developed based on the mineral mapping programme taken up by NDDB and various centres under the ICAR Micro-Nutrients Network Programme

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**Area specific mineral mixture formulation for the state of
Andhra Pradesh**

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	26.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	11.0	IS 14828
4.	Copper (%), Min.	0.20	IS 15121
5.	Zinc (%), Min.	1.40	IS 15121
6.	Manganese (%), Min.	0.30	IS 15121
7.	Cobalt (%), Min.	0.02	Cl. No. 11 of IS 7874 (Part 2)
8.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.065	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
11.	Lead (ppm), Max.	22	A-7 of IS 1767
12.	Arsenic (ppm), Max.	8	A-6 of IS 1767
Note: The values for requirements (2) to (12) are on moisture-free basis.			

**Area specific mineral mixture formulation for the state of
Arunachal Pradesh**

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	28.50	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	8.0	IS 14828
4.	Copper (%), Min.	0.20	IS 15121
5.	Zinc (%), Min.	1.00	IS 15121
6.	Manganese (%), Min.	0.30	IS 15121
7.	Cobalt (%), Min.	0.02	Cl. No. 11 of IS 7874 (Part 2)
8.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.05	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
11.	Lead (ppm), Max.	19	A-7 of IS 1767
12.	Arsenic (ppm), Max.	7	A-6 of IS 1767
Note: The values for requirements (2) to (12) are on moisture-free basis.			

Area specific mineral mixture formulation for the state of Assam

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	26.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	10.0	IS 14828
4.	Magnesium (%), Min.	2.0	IS 15121 or IS 13574
5.	Copper (%), Min.	0.20	IS 15121
6.	Zinc (%), Min.	1.20	IS 15121
7.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
8.	Fluorine (%), Max.	0.06	Annex B of IS 5470:2002
9.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
10.	Lead (ppm), Max.	21	A-7 of IS 1767
11.	Arsenic (ppm), Max.	8	A-6 of IS 1767
Note: The values for requirements (2) to (11) are on moisture-free basis.			

Area specific mineral mixture formulation for the state of Bihar

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	20.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	10.0	IS 14828
4.	Magnesium (%), Min.	5.0	IS 15121 or IS 13574
5.	Sulphur (%), Min.	4.0	Annex B of IS 1664:2002
	Sulphur (%), Max.	5.0	
6.	Copper (%), Min.	0.10	IS 15121
7.	Zinc (%), Min.	1.0	IS 15121
8.	Cobalt (%), Min.	0.012	Cl. No. 11 of IS 7874 (Part 2)
9.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
10.	Fluorine (%), Max.	0.06	Annex B of IS 5470:2002
11.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
12.	Lead (ppm), Max.	20	A-7 of IS 1767
13.	Arsenic (ppm), Max.	7	A-6 of IS 1767
Note: The values for requirements (2) to (13) are on moisture-free basis.			

**Area specific mineral mixture formulation for the state of
Himachal Pradesh**

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	28.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	9.0	IS 14828
4.	Copper (%), Min.	0.12	IS 15121
5.	Zinc (%), Min.	0.80	IS 15121
6.	Manganese (%), Min.	0.30	IS 15121
7.	Cobalt (%), Min.	0.01	Cl. No. 11 of IS 7874 (Part 2)
8.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.05	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
11.	Lead (ppm), Max.	20	A-7 of IS 1767
12.	Arsenic (ppm), Max.	7	A-6 of IS 1767
Note: The values for requirements (2) to (12) are on moisture-free basis.			

Area specific mineral mixture formulation for the state of Haryana

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	26.50	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	10.0	IS 14828
4.	Copper (%), Min.	0.20	IS 15121
5.	Zinc (%), Min.	1.40	IS 15121
6.	Manganese (%), Min.	0.30	IS 15121
7.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
8.	Fluorine (%), Max.	0.06	Annex B of IS 5470:2002
9.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
10.	Lead (ppm), Max.	21	A-7 of IS 1767
11.	Arsenic (ppm), Max.	8	A-6 of IS 1767

Note: The values for requirements (2) to (11) are on moisture-free basis.

Area specific mineral mixture formulations for the state of Gujarat

Sl. No.	Characteristic	Requirement		Method of Test (Ref to)
		Panchmahal & Dahod districts	Rest of Gujarat*	
1.	Moisture (%), Max.	5.0	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	23.0	22.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	11.0	14.50	IS 14828
4.	Sulphur (%), Min.	4.0	2.0	Annex B of IS 1664:2002
	Sulphur (%), Max.	5.0	3.0	
5.	Copper (%), Min.	0.10	0.14	IS 15121
6.	Zinc (%), Min.	1.00	1.20	IS 15121
7.	Cobalt (%), Min.	---	0.014	Cl. No. 11 of IS 7874 (Part 2)
8.	Iodine (%), Min.	0.026	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.065	0.08	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	3.0	Cl. No. 10 of IS 7874 (Part 1)
11.	Lead (ppm), Max.	21	26	A-7 of IS 1767
12.	Arsenic (ppm), Max.	8	9	A-6 of IS 1767

Note: The values for requirements (2) to (12) are on moisture-free basis.

*Junagadh, Rajkot, Porbandar, Amreli, Jamnagar, Surendranagar, Bhavnagar, Kutch, Mehsana, Patan, Banaskantha, Sabarkantha, Anand, Kaira, Ahmedabad, Gandhinagar, Vadodara, Surat, Bharuch, Narmada, Dangs, Navsari and Valsad districts.

Area specific mineral mixture formulation for the state of Karnataka

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	26.50	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	9.0	IS 14828
4.	Magnesium (%), Min.	1.50	IS 15121 or IS 13574
5.	Copper (%), Min.	0.30	IS 15121
6.	Zinc (%), Min.	1.62	IS 15121
7.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
8.	Fluorine (%), Max.	0.05	Annex B of IS 5470:2002
9.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
10.	Lead (ppm), Max.	20	A-7 of IS 1767
11.	Arsenic (ppm), Max.	7	A-6 of IS 1767

Note: The values for requirements (2) to (11) are on moisture-free basis.

Area specific mineral mixture formulation for the state of Kerala

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	22.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	12.50	IS 14828
4.	Sulphur (%), Min.	3.5	Annex B of IS 1664:2002
	Sulphur (%), Max.	4.5	
5.	Copper (%), Min.	0.15	IS 15121
6.	Zinc (%), Min.	1.20	IS 15121
7.	Cobalt (%), Min.	0.012	Cl. No. 11 of IS 7874 (Part 2)
8.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.075	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
11.	Lead (ppm), Max.	23	A-7 of IS 1767
12.	Arsenic (ppm), Max.	8	A-6 of IS 1767
Note: The values for requirements (2) to (12) are on moisture-free basis.			

**Area specific mineral mixture formulation for the state of
Madhya Pradesh**

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	26.50	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	10.0	IS 14828
4.	Copper (%), Min.	0.20	IS 15121
5.	Zinc (%), Min.	1.30	IS 15121
6.	Manganese (%), Min.	0.40	IS 15121
7.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
8.	Fluorine (%), Max.	0.06	Annex B of IS 5470:2002
9.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
10.	Lead (ppm), Max.	21	A-7 of IS 1767
11.	Arsenic (ppm), Max.	8	A-6 of IS 1767
Note: The values for requirements (2) to (11) are on moisture-free basis.			

**Area specific mineral mixture formulation for the state of
Maharashtra**

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	23.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	11.50	IS 14828
4.	Magnesium (%), Min.	4.0	IS 15121 or IS 13574
5.	Copper (%), Min.	0.20	IS 15121
6.	Zinc (%), Min.	1.20	IS 15121
7.	Cobalt (%), Min.	0.01	Cl. No. 11 of IS 7874 (Part 2)
8.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.065	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
11.	Lead (ppm), Max.	22	A-7 of IS 1767
12.	Arsenic (ppm), Max.	8	A-6 of IS 1767
Note: The values for requirements (2) to (12) are on moisture-free basis.			

Area specific mineral mixture formulation for the state of Odisha

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	24.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	11.0	IS 14828
4.	Magnesium (%), Min.	1.20	IS 15121 or IS 13574
5.	Copper (%), Min.	0.20	IS 15121
6.	Zinc (%), Min.	1.50	IS 15121
7.	Manganese (%), Min.	0.50	IS 15121
8.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.065	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
11.	Lead (ppm), Max.	25	A-7 of IS 1767
12.	Arsenic (ppm), Max.	8	A-6 of IS 1767
Note: The values for requirements (2) to (12) are on moisture-free basis.			

Area specific mineral mixture formulation for the state of Punjab

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	23.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	12.50	IS 14828
4.	Sulphur (%), Min.	2.2	Annex B of IS 1664:2002
	Sulphur (%), Max.	3.0	
5.	Copper (%), Min.	0.15	IS 15121
6.	Zinc (%), Min.	1.40	IS 15121
7.	Cobalt (%), Min.	0.016	Cl. No. 11 of IS 7874 (Part 2)
8.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.075	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
11.	Lead (ppm), Max.	23	A-7 of IS 1767
12.	Arsenic (ppm), Max.	8	A-6 of IS 1767
Note: The values for requirements (2) to (12) are on moisture-free basis.			

Area specific mineral mixture formulation for the state of Rajasthan

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	22.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	14.0	IS 14828
4.	Sulphur (%), Min.	3.0	Annex B of IS 1664:2002
	Sulphur (%), Max.	3.5	
5.	Copper (%), Min.	0.06	IS 15121
6.	Zinc (%), Min.	0.70	IS 15121
7.	Cobalt (%), Min.	0.014	Cl. No. 11 of IS 7874 (Part 2)
8.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.08	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
11.	Lead (ppm), Max.	25	A-7 of IS 1767
12.	Arsenic (ppm), Max.	9	A-6 of IS 1767
Note: The values for requirements (2) to (12) are on moisture-free basis.			

Area specific mineral mixture formulation for the state of Sikkim

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	27.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	10.0	IS 14828
4.	Copper (%), Min.	0.40	IS 15121
5.	Zinc (%), Min.	0.50	IS 15121
6.	Manganese (%), Min.	0.50	IS 15121
7.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
8.	Fluorine (%), Max.	0.06	Annex B of IS 5470:2002
9.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
10.	Lead (ppm), Max.	21	A-7 of IS 1767
11.	Arsenic (ppm), Max.	8	A-6 of IS 1767
Note: The values for requirements (2) to (11) are on moisture-free basis.			

**Area specific mineral mixture formulations for the state of
Tamil Nadu**

Sl. No.	Characteristic	Requirement		Method of Test (Ref to)
		Area-I*	Area-II**	
1.	Moisture (%), Max.	5.0	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	25.0	27.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	10.0	10.0	IS 14828
4.	Magnesium (%), Min.	3.0	--	IS 15121 or IS 13574
5.	Copper (%), Min.	0.20	0.30	IS 15121
6.	Zinc (%), Min.	1.40	1.40	IS 15121
7.	Cobalt (%), Min.	0.02	0.02	Cl. No. 11 of IS 7874 (Part 2)
8.	Iodine (%), Min.	0.026	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.06	0.06	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	3.0	Cl. No. 10 of IS 7874 (Part 1)
11.	Lead (ppm), Max.	21	21	A-7 of IS 1767
12.	Arsenic (ppm), Max.	8	8	A-6 of IS 1767

Note: The values for requirements (2) to (12) are on moisture-free basis.

*Coimbatore, Chennai, Kanchepuram, Kanyakumari, Madurai, Nagapattinam, Sivagangai, Thiruvallur, Virudhunagar, Thoothukudi, Trichy, Thiruvarur, Thiruvannamalai, Pudukkottai, Ramnad (Ramanathapuram) & Thanjavur districts.

**Dindugal, Dharmapuri, Erode, Namakkal, Salem, Thirunelveli, Villupuram, Vellore, Tirpur, Ariyalur, Cuddalore, Nilgiris, Karur, Krishnagiri, Perambalur & Theni districts.

Area specific mineral mixture formulation for the state of Tripura

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	25.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	12.0	IS 14828
4.	Copper (%), Min.	0.30	IS 15121
5.	Zinc (%), Min.	1.00	IS 15121
6.	Manganese (%), Min.	0.40	IS 15121
7.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
8.	Fluorine (%), Max.	0.07	Annex B of IS 5470:2002
9.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
10.	Lead (ppm), Max.	23	A-7 of IS 1767
11.	Arsenic (ppm), Max.	8	A-6 of IS 1767
Note: The values for requirements (2) to (11) are on moisture-free basis.			

**Area specific mineral mixture formulations for the state of
Uttarakhand**

Sl. No.	Characteristic	Requirement		Method of Test (Ref to)
		Hilly Zone*	Plain Zone**	
1.	Moisture (%), Max.	5.0	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	27.0	24.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	10.0	14.0	IS 14828
4.	Copper (%), Min.	0.15	0.25	IS 15121
5.	Zinc (%), Min.	1.20	1.40	IS 15121
6.	Manganese (%), Min.	0.30	--	IS 15121
7.	Iodine (%), Min.	0.026	0.026	Cl. No. 8 of IS 7874 (Part 2)
8.	Fluorine (%), Max.	0.06	0.08	Annex B of IS 5470:2002
9.	Acid insoluble ash (%), Max.	3.0	3.0	Cl. No. 10 of IS 7874 (Part 1)
10.	Lead (ppm), Max.	21	25	A-7 of IS 1767
11.	Arsenic (ppm), Max.	8	9	A-6 of IS 1767
<p>Note: The values for requirements (2) to (11) are on moisture-free basis.</p> <p>*Pithorgarh, Uttarakashi, Chamoli, Bageshwar, Almora, Champawat, Nainital, Pauri, Tehri Garhwal & Rudra Prayag districts.</p> <p>**Udamsinghnagar & Haridwar districts.</p>				

**Area specific mineral mixture formulations for the state of
Uttar Pradesh**

Sl. No.	Characteristic	Requirement		Method of Test (Ref to)
		Western UP*	Rest of UP**	
1.	Moisture (%), Max.	5.0	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	25.50	27.50	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	12.0	9.0	IS 14828
4.	Copper (%), Min.	0.20	0.20	IS 15121
5.	Zinc (%), Min.	1.40	1.20	IS 15121
6.	Manganese (%), Min.	0.10	0.30	IS 15121
7.	Cobalt (%), Min.	0.01	0.01	Cl. No. 11 of IS 7874 (Part 2)
8.	Iodine (%), Min.	0.026	0.026	Cl. No. 8 of IS 7874 (Part 2)
9.	Fluorine (%), Max.	0.07	0.05	Annex B of IS 5470:2002
10.	Acid insoluble ash (%), Max.	3.0	3.0	Cl. No. 10 of IS 7874 (Part 1)
12.	Lead (ppm), Max.	23	20	A-7 of IS 1767
13.	Arsenic (ppm), Max.	8	7	A-6 of IS 1767

Note: The values for requirements (2) to (13) are on moisture-free basis.

*Mathura, Hathras, Etah, Aligarh, Agra, Firozabad, Mainpuri, Farrukhabad, Etawah, Kanauj, Auraiya, Moradabad, Bijnor, Jyotiba Phule Nagar, Budaun, Meerut, Muzaffarnagar, Saharanpur, Baghpat, Ghaziabad and Bulandshahr districts.

**Rampur, Bareilly, Pilibhit, Lakhimpur, Hardoi, Sitapur, Bahraich, Kanpur (Rural), Kanpur (Urban), Unnao, Lucknow, Barabanki, Gonda, Shravasti, Balrampur, Jalaun, Jhansi, Hamirpur, Fatehpur, Rae Bareilly, Sultanpur, Faizabad, Basti, Sidharthnagar, Mahoba, Chitrakut, Kaushambi, Pratapgarh, Ambedkar Nagar, Sant Kabir Nagar, Maharajganj, Allahabad, Jaunpur, Azamgarh, Gorakhpur, Deoria, Kushinagar, Sant Ravidas Nagar, Mirzapur, Varanasi, Ghazipur, Mau, Chanduali, Sonbhadra, Lalitpur, Saharanpur, Gautam Budh Nagar, Banda & Ballia districts.

**Area specific mineral mixture formulation for the state of
West Bengal**

Sl. No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	25.50	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	11.0	IS 14828
4.	Copper (%), Min.	0.20	IS 15121
5.	Zinc (%), Min.	1.40	IS 15121
6.	Manganese (%), Min.	0.50	IS 15121
7.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
8.	Fluorine (%), Max.	0.065	Annex B of IS 5470:2002
9.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
10.	Lead (ppm), Max.	22	A-7 of IS 1767
11.	Arsenic (ppm), Max.	8	A-6 of IS 1767
Note: The values for requirements (2) to (11) are on moisture-free basis.			

Mineral mixture (without common salt, as per BIS specifications)

(For the states of Jammu & Kashmir, Chhattisgarh, Jharkhand, Goa, Meghalaya, Manipur, Nagaland, Mizoram & Union Territories: Puducherry, Andaman & Nicobar Islands, Lakshadweep, Diu & Daman, Dadra & Nagar Haveli)

Sl.No.	Characteristic	Requirement	Method of Test (Ref to)
1.	Moisture (%), Max.	5.0	Annex-A of IS 5470:2002
2.	Calcium (%), Min.	20.0	IS 15121 or IS 13433 (Part 1) or IS 13574
3.	Phosphorus (%), Min.	12.0	IS 14828
4.	Magnesium (%), Min.	5.0	IS 15121 or IS 13574
5.	Sulphur (%), Min.	1.8	Annex B of IS 1664:2002
	Sulphur (%), Max.	3.0	
6.	Copper (%), Min.	0.10	IS 15121
7.	Zinc (%), Min.	0.80	IS 15121
8.	Manganese (%), Min.	0.12	IS 15121
9.	Iron (%), Min.	0.40	IS 15121
10.	Iodine (%), Min.	0.026	Cl. No. 8 of IS 7874 (Part 2)
11.	Cobalt (%), Min.	0.012	Cl. No. 11 of IS 7874 (Part 2)
12.	Fluorine (%), Max.	0.07	Annex B of IS 5470:2002
13.	Acid insoluble ash (%), Max.	3.0	Cl. No. 10 of IS 7874 (Part 1)
14.	Lead (ppm), Max.	20.0	A-7 of IS 1767
15.	Arsenic (ppm), Max.	7.0	A-6 of IS 1767
16.	Total ash (%)	78-85	Annex C of IS 5470:2002
17.	Presence of proteinous/ organic impurities	Shall pass the test	Annex D of IS 5470:2002

Note: The values for requirements (2) to (16) are on moisture-free basis.