

IOM-1

Na¹³¹I SOLUTION

(THERAPEUTIC -FOR ORAL ADMINISTRATION)

Sodium iodide (Na¹³¹I) in solution form is used extensively for therapy of thyroid cancer. A sufficiently high concentration delivers prescribed radiation dose to the thyroid gland tissue. It is efficacious, safe, simple and cost effective

INDICATIONS

- Treatment of thyroid metastases, thyrotoxicosis, toxic multi-nodular goitre, autonomous nodules
- Treatment of metastatic thyroid carcinoma post thyroidectomy and ablation therapy of thyroid remnants/residual local tissue/metastatic disease

Description	: ¹³¹ I as Sodium iodide in dilute sodium thiosulphate solution
Appearance	: Clear, colourless, aqueous preparation
Radioactive concentration	: Typically 50 mCi/ml (1.85 GBq/ml) on the reference date
Radionuclidic purity	: No other extraneous radionuclide is present.
pH	: 7-10
Radiochemical purity	: Not less than 95% as iodide
Thiosulphate content	: 25-100 mg/Ci of I-131 on the date of preparation
Tellurium content	: < 5 µg/ml
Specific activity	: No carrier added, 25-40 mCi /µg on the reference date
Storage	: Store at room temperature with adequate shielding
Shelf life	: 30 days from the date of determining the radiochemical purity
Availability	: Ex-stock (Weekly)
Dosage and administration	: Intended dose administered orally, is a matter for clinical judgment
Available pack sizes	: 50 mCi in 1 ml (1.85 GBq in 1ml); 100 mCi in 2 ml (3.7 GBq in 2ml); 150 mCi in 3 ml (5.55 GBq in 3ml); 200 mCi in 4 ml (7.4 GBq in 4ml); 250 mCi in 5 ml (9.25 GBq in 5ml)



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Code	Description	Activity
IOM-1	Iodine -131 as Sodium iodide in dilute sodium thiosulphate solution	50 mCi, 100 mCi, 150 mCi, 200 mCi, 250 mCi as on the reference date

Physical characteristics of Iodine -131

Half life	8.02 days
Decay mode	β^-
E_{β^-} (%)	250 keV (9%), 335 keV (9%) 608 keV (81%), 812 keV (0.7%)
E_{β^-} (Mean)	191.6 keV (89.3%)
E_{γ} (%)	284 keV (6.06%), 364 keV (81%), 637 keV (7.3%), 723 keV (1.8%)

Decay Chart of Iodine -131

Days	Multiplication Factor	CODE: IOM-1				
		50 mCi on Ref. date	100 mCi on Ref. date	150 mCi on Ref. date	200 mCi on Ref. date	250 mCi on Ref. date
-3	1.298	65	130	195	260	325
-2	1.190	60	119	179	238	298
-1	1.086	54	109	163	217	272
Reference date	1.00	50	100	150	200	250
1	0.92	46	92	138	184	230
2	0.84	42	84	126	168	210
3	0.77	39	77	116	154	193
4	0.71	36	71	107	142	178
5	0.65	33	65	98	130	163
6	0.60	30	60	90	120	150
7	0.55	28	55	83	110	138
8	0.50	25	50	75	100	125
9	0.46	23	46	69	92	115
10	0.42	21	42	63	84	105
11	0.39	20	39	59	78	98
12	0.36	18	36	54	72	90



Na¹³¹I Solution-Dispensing Plant



Automated Packaging & Surface Dose Certification Unit



For placing the orders and further details please contact
Customer Support Services Cell (CSSC)

Board of Radiation and Isotope Technology

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