

**IOM-1****Na<sup>131</sup>I SOLUTION****(THERAPEUTIC -FOR ORAL ADMINISTRATION)**

Sodium iodide (Na<sup>131</sup>I) 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

<b>Description</b>	: <sup>131</sup> I as Sodium iodide in dilute sodium thiosulphate solution
<b>Appearance</b>	: Clear, colourless, aqueous preparation
<b>Radioactive concentration</b>	: Typically 50 mCi/ml (1.85 GBq/ml) on the reference date
<b>Radionuclidic purity</b>	: No other extraneous radionuclide is present.
<b>pH</b>	: 7–10
<b>Radiochemical purity</b>	: Not less than 95% as iodide
<b>Thiosulphate content</b>	: 25-100 mg/Ci of I-131 on the date of preparation
<b>Tellurium content</b>	: < 5 µg/ml
<b>Specific activity</b>	: No carrier added, 25-40 mCi /µg on the reference date
<b>Storage</b>	: Store at room temperature with adequate shielding
<b>Shelf life</b>	: 30 days from the date of determining the radiochemical purity
<b>Availability</b>	: Ex-stock (Weekly)
<b>Dosage and administration</b>	: Intended dose administered orally, is a matter for clinical judgment
<b>Available pack sizes</b>	: 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	$\beta^-$
$E_{\beta^-}$ (%)	250 keV (9%), 335 keV (9%) 608 keV (81%), 812 keV (0.7%)
$E_{\beta^-}$ (Mean)	191.6 keV (89.3%)
$E_{\gamma}$ (%)	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
<b>Reference date</b>	<b>1.00</b>	<b>50</b>	<b>100</b>	<b>150</b>	<b>200</b>	<b>250</b>
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



Na<sup>131</sup>I 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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