

Indium-111 Chloride **Radiochemical Solution**

Indium-111 Chloride is a diagnostic agent that can be used for radiolabeling targeted molecules or cells. Applications include the labeling of platelets for thrombus detection, labelled leukocytes for localization of inflammation and abscesses, as well as leukocyte kinetics.

Process Data

Nuclear Reaction

$^{112}\text{Cd} (p, 2n) \rightarrow ^{111}\text{In}$

Assay

High resolution gamma-ray spectrometry at 245.4 and 171.3 keV

Product Specification

Half Life

2.8 days

Normality

0.05 N \pm 0.01 N HCl

Specific Activity

$\geq 50 \text{ mCi}/\mu\text{g}$ ($\geq 1.85 \text{ GBq}/\mu\text{g}$)

Activity Concentration*

$\geq 25 \text{ mCi}/\text{mL}$
($\geq 0.925 \text{ GBq}/\text{mL}$)

Radiochemical Purity

In-111 $\geq 95\%$ is present as ionic form
Others $\leq 5\%$

Radiopurity*

$^{111}\text{In} \geq 99.9\%$
Others $\leq 0.1\%$

Chemical Purity*

Composite total metal ion content of Cd, Cu, Fe, Hg, Ni, Pb, Zn is $\leq 20 \mu\text{g}/\text{mL}$

Packaging

- Glass V-Vial with crimp cap (1, 3, 5 mL)
- Hypo-Vial with crimp cap (5, 10 mL)

Product Origin

Vancouver, Canada

*As of reference date and time.

Please note that the Indium-111 Chloride is not tested for sterility. An endotoxin monitoring program is in place. Verification of suitability for use in humans is the sole responsibility of the purchaser.

Advantages



- Key supplier to North American market since 1984
- High purity product
- Custom dispensing available for next day delivery



World-Class Delivery Service

BWXT Medical has a world-class distribution system and specialized order management system for reliable and flexible delivery throughout North America.

Other BWXT Products:

- Indium (In-111) Oxyquinoline Solution (US only)
- Iodine-123 Sodium Iodide Radiochemical
- Iodine-123 Sodium Iodide Oral Solution (Canada Only)
- Germanium-68 Chloride Radiochemical Solution
- Strontium-82 Chloride Radiochemical Solution

Indium-111 Decay Table Half-Life: 2.80 days

HOURS	0	1	2	3	4	5	6	7	8	9
0	1.0000	0.9897	0.9796	0.9695	0.9596	0.9497	0.9400	0.9303	0.9208	0.9113
10	0.9020	0.8927	0.8836	0.8745	0.8655	0.8567	0.8479	0.8392	0.8306	0.8220
20	0.8136	0.8052	0.7970	0.7888	0.7807	0.7727	0.7648	0.7569	0.7492	0.7415
30	0.7339	0.7263	0.7189	0.7115	0.7042	0.6970	0.6898	0.6827	0.6757	0.6688
40	0.6619	0.6551	0.6484	0.6418	0.6352	0.6287	0.6222	0.6158	0.6095	0.6033
50	0.5971	0.5909	0.5849	0.5789	0.5729	0.5670	0.5612	0.5555	0.5498	0.5441
60	0.5385	0.5330	0.5276	0.5221	0.5168	0.5115	0.5062	0.5010	0.4959	0.4908
70	0.4858	0.4808	0.4758	0.4710	0.4661	0.4613	0.4566	0.4519	0.4473	0.4427
80	0.4382	0.4337	0.4292	0.4248	0.4204	0.4161	0.4119	0.4076	0.4035	0.3993
90	0.3952	0.3912	0.3871	0.3832	0.3792	0.3754	0.3715	0.3677	0.3639	0.3602
100	0.3565	0.3528	0.3492	0.3456	0.3421	0.3386	0.3351	0.3317	0.3282	0.3249
110	0.3215	0.3182	0.3150	0.3117	0.3085	0.3054	0.3022	0.2991	0.2961	0.2930
120	0.2900	0.2871	0.2841	0.2812	0.2783	0.2755	0.2726	0.2698	0.2671	0.2643
130	0.2616	0.2589	0.2563	0.2536	0.2510	0.2485	0.2459	0.2434	0.2409	0.2384
140	0.2360	0.2335	0.2312	0.2288	0.2264	0.2241	0.2218	0.2195	0.2173	0.2150
150	0.2128	0.2107	0.2085	0.2064	0.2042	0.2021	0.2001	0.1980	0.1960	0.1940
160	0.1920	0.1900	0.1881	0.1861	0.1842	0.1823	0.1805	0.1786	0.1768	0.1750
170	0.1732	0.1714	0.1696	0.1679	0.1662	0.1645	0.1628	0.1611	0.1595	0.1578
180	0.1562	0.1546	0.1530	0.1514	0.1499	0.1483	0.1468	0.1453	0.1438	0.1423
190	0.1409	0.1394	0.1380	0.1366	0.1352	0.1338	0.1324	0.1311	0.1297	0.1284

The half-life values stated are as of time of publication. BWXT values may vary.

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