

## QUALITY CERTIFICATE

### TYPICAL

**Material name:**  $^{18}\text{O}$  enriched normalized water ( $\text{H}_2^{18}\text{O}$ ), production process GMP certified

**Lot number:** as per contract

Isotope composition	
<b>O-18</b>	<b>98.00%at</b>
<b>O-17</b>	<b>1.00%at</b>
<b>O-16</b>	<b>1.00%at</b>

Test	Specification	Method/Reference
Conductivity	0.3 $\mu\text{S}/\text{cm}$	Conductivity meter
PH	7.0	pH meter
pyrogenicity	< 0.03 EU/ml,	LAL test
Sterility	Passes test	test
Total Organic Carbon	< 0.2 mg/L	TOC analyzer
H	> 99.9	
D	$\approx 0.015$	
T	< 5 $10^{-11}\text{Ci}/\text{L}$	

### The chemical content on the water specimen

Element	Measure Impurities Content (mg/L)	Element	Measure Impurities Content (mg/L)	Element	Measure Impurities Content (mg/L)
F	< 0.1	Cl	< 0.1	Mo	0.000039
Na	0.220	Ti	0.00065	Ag	< 0.00001
Mg	0.00080	V	0.000016	Cd	0.000047
K	0.022	Cr	0.0071	Sn	0.00019
Ca	0.051	Mn	0.00098	Sb	< 0.00001
Fe	0.038	Co	0.00019	Te	< 0.00001
Br	0.019	Ni	0.0012	Ba	0.00021
NH <sub>3</sub>	< 0.02	Cu	0.00097	Hg	< 0.00001
Li	0.00011	Zn	0.027	Tl	< 0.00001
Be	< 0.00001	Ge	< 0.00001	Pb	0.000012
B	0.0041	As	< 0.00001	Bi	< 0.00001
Al	0.00045	Se	< 0.00001		
Si	0.690	Sr	0.00020		

#### Additional Information:

- Production process GMP certified.
- The total radioactivity of the present water specimen are no more than the natural background (10-15 mkr/h).
- Packaging: in the borosilicate US standard glass vials with rubber-stoppers and aluminum crimp seals. The vials special sterilized prior to filling.
- Guarantee validity period is no fewer TWO YEARS from shipment.

Signature \_\_\_\_\_