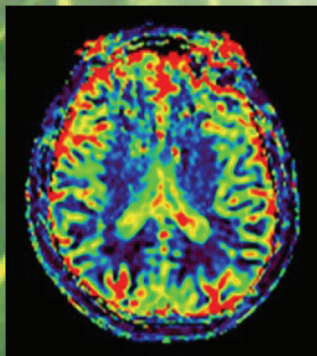




MATHESON

The Gas Professionals



Hitachi MRI system

Brain ^{17}O -MRI

Provided by Kohsuke Kudo, M.D., Ph.D.,
Associate Professor, Hokkaido University Hospital

MRI Testing

Water

17



Ultra-Pure Oxygen Cryogenic Distillation A Revolutionary New Process

Quality
Assurance

GMP&ISO9001

Analytic contents customized to suit specific needs

Capacity

30kg per year

Ensures a stable and secure supply

Enrichment

10atom%

Dedicated plant to the manufacturing of 10 atom% product



Product Specifications

- Formula: H_2^{17}O
- Chemical Purity: >99.99%
- Packing Size: 10g
- Container:
Glass vial septum top and aluminum crimp seal



Test	Unit	Specification	Method
Oxygen- ^{18}O	atom%	—	MS
Oxygen- ^{17}O	atom%	≥ 10	MS
Oxygen- ^{16}O	atom%	—	MS
Appearance	—	Clear, Colorless, No visible object	Visual check
Chemical purity	%	> 99.99	*
Na	mg/L	< 2	ICP-MS
Mg	mg/L	< 1	ICP-MS
K	mg/L	< 1	ICP-MS
Ca	mg/L	< 1	ICP-MS
Fe	mg/L	< 0.1	ICP-MS
Cu	mg/L	< 1	ICP-MS
Zn	mg/L	< 1	ICP-MS
NH_4^+	mg/L	< 1	IC
F^-	mg/L	< 1	IC
Cl^-	mg/L	< 1	IC
Br^-	mg/L	< 1	IC
NO_3^-	mg/L	< 1	IC
PO_4^{3-}	mg/L	< 1	IC
SO_4^{2-}	mg/L	< 1	IC
I^-	mg/L	< 1	IC
Total Organic Carbon	mg/L	< 5	TOC analyzer
Conductivity	mS/m	< 0.3	Conductivity meter
pH	—	5.5-8.0	pH meter
Microbial limit	cfu/mL	< 1	Membrane filter
Pyrogenicity	EU/mL	< 0.25	LAL

* Chemical purity value is calculated by subtracting the sum total of measured impurities from 100%.

To Learn More, contact:

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PARTNERING TOGETHER



TAIYO NIPPON SANSO
The Gas Professionals



MATHESON
The Gas Professionals

Water ^{17}O is manufactured by MATHESON's sister company, Taiyo Nippon Sanso, Tokyo, Japan. MATHESON and Taiyo Nippon Sanso are members of Nippon Sanso Holdings Corporation.

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