Reference Material for Nutrients in Seawater (RMNS): Certified Reference Material
ISO 17034 (Accreditation No. ASNITE 0052 R)
KANSO is the producer of RMNS and accredited under the Accreditation System of National Institute of Technology and Evaluation (ASNITE) as a CRM producer since 2011.

For the measurements of seawater nutrients (nitrate, nitrite, phosphate, silicate), RMNS will help assessments of measurement repeatability and accuracy, comparability of collected data, and the quality management of measurement data by including RMNS with sample measurements.

Are you not troubled?

➤ Differences in the last year and this year's data.
➤ Comparison of measurement data among analysts.
➤ Dispersion of measurement data.
➤ Systematic error caused by differences in laboratories.
➤ Accuracy management of measurement data.
➤ Maintenance check with the analysis equipment.

Certified Reference Material – RMNS is the solution!

Japan Patent No. 3477468, 4459752, and 5705574
Korea Patent No. 10-1507432
US Patent Publication No. US-2013-0305660-A1

Characteristics

➤ **Nutrients in seawater are contained in 100 mL-polypropylene bottle.**
   Target nutrients are nitrate, nitrite, phosphate, and silicate (about 90 mL sample per bottle).

➤ **Uses 100% natural seawater and poison is not added.**
   The matrix of seawater is maintained because there is no additive.
   Poison such as mercury is not added.

➤ **Nutrients concentration range is covered from low to high levels.**
   The range of concentrations in the ocean can be covered.

➤ **Can be measured immediately with an auto analyzer.**
   After opening RMNS, there is no need for dissolution and/or dilution step.
   Can be measured by putting in a sample cup.

➤ **A custom order by the lot unit is possible.**
   The production of 200 to 2,500 bottles per lot is possible.

   If the seawater of the object sea area (for instance, the Arctic, the North Atlantic, the equatorial regions, coast bay, etc.) can be sent to our facility, we will complete the rest of the processes and deliver the goods.

   For more details about RMNS and information on current available lots in stock, please contact RMinfo@kanso.co.jp.

RMNS: Reference Material for Nutrients in Seawater

RMNS is most suitable for Continuous Flow Analysis

Continuous Flow Analysis (CFA) can measure several analytes at the same time.

With just one bottle of RMNS, quality control of four nutrients can be done simultaneously.

RMNS is a CRM with excellent cost performance for seawater nutrients measurements.

Continuous flow analyzer

IOCCP encourages the use of Certified Reference Material for nutrients

Citation: The IOCCP conveyor No. 37, April 2017

http://www.ioccp.org/images/Cconveyor/April-2017/The-IOCCP
-Conveyor-37_April-2017_FINAL.pdf

IOCCP: International Ocean Carbon Coordination Project

RMNS mentioned in GO-SHIP Repeat Hydrography Manual (2010)

An international nutrients analysis manual was revised in August, 2010, and methods for measurement using RMNS was suggested in the following manual: GO-SHIP Repeat Hydrography Manual: A Collection of Expert Reports and Guidelines, IOCCP Report No. 14, ICPO Publication Series No. 134, "Recommendations for the Determination of Nutrients in Seawater to High Levels of Precision and Inter-Comparability using Continuous Flow Analysers".

Link: http://www.go-ship.org/HydroMan.html

KANSO CO., LTD.
Laboratory for Instrumentation and Analysis
3-1-1 Higashikuraji, Katano, Osaka 576-0061, Japan
Tel. +81-72-810-6551   Fax. +81-72-810-6552

Registration and Accreditation
・ISO Guide 34 (reference material producer)
・ISO/IEC17025 (testing laboratory)
・ISO/IEC17043 (proficiency testing provider)
・ISO14001 EMS (environmental management system)

Business field
・Chemical analysis
・Dioxin analysis, endocrine disruptor analysis
・Sales and maintenance of atmosphere environmental analyzer
  and meteorological instrument
・Manufacture and sales of reference materials
・Provider of proficiency testing

KANSO CO., LTD.
Head Office: 1-3-5 Azuchimachi, Chuo-ku, Osaka 541-0052, Japan
URL: http://www.kanso.co.jp/