

## **BharatiyaNirdeshaDravya (BND®)**

The speedy advancement in science & technology and globalization of economies poses a strong need for more stringent metrological regulations in trade and commerce to compete domestically and internationally. To this end, Legal Metrology Act, 2009 was enforced by government of India (GOI) on April 1, 2011 throughout the country. The regulatory bodies such as BIS, Ministry of Consumer Affairs, NABL and other State Metrological Laboratories are closely working for the uplifting of national quality infrastructure through unbroken chain of measurement standards with associated traceability aspects provided by CSIR-NPL.

CSIR-National Physical laboratory (CSIR-NPL), has adopted an international practice for the production of Indian Certified Reference Material (CRMs) Trademarked as BHARATIYA NIRDESHAK DRAVYA, (BND®) by signing a MoU with NABL accredited reference material producers for the speedy production of CRMs to meet the national demand. CRMs are widely used for the calibration of measuring apparatus, for the evaluation of measurement procedures and for the internal or external quality control of measurements and laboratories. CSIR-NPL has initiated CRM production under “Make in India” initiative for “cost-effective” production. The availability of SI traceable BNDs® is poised to boost the “Aatm Nirbhar Bharat” initiative and harmonize the quality infrastructure in the country and equip the quality regulatory bodies of almost all the ministries.

The international trade demands that the products are manufactured under quality systems with established measurement traceability to SI units through NMI. In India, NPL provides the measurement traceability through the calibration of equipment using its national/primary standards and BharatiyaNirdeshaDravya (BND®). BNDs are well-characterized using state-of-the-art measurement methods for the determination of chemical composition and/or physical properties. BNDs ensure the accuracy and reliability of measurements that are required for controlling the quality of products developed by industry, for new discoveries in science, innovation and technology, for monitoring the environment and for better health and safety of citizens in India.

BNDs are being developed following the stringent conditions of ISO17025 and ISO 17034 & 35. To date, 72 BNDs are available in the market with continuous effort to enhance the number. The developed BNDs are also being exported to different economies.