



# Diagnostic Chemicals Ltd.

Diagnostic Chemicals Ltd., located in West Royalty Industrial Park, Charlottetown, P.E.I., Canada, is a Canadian company which manufactures diagnostic reagents, enzymes, and specialty chemicals. The company was founded in 1970 and currently occupies 15,000 square feet in two buildings in the industrial park. The President of the company is J. Regis Duffy, Ph.D., formerly Professor of Chemistry and Dean of the Faculty of Science at the University of Prince Edward Island. The Vice-President for research and development is D.J. Hennessey, Ph.D., Professor Emeritus of chemistry, Fordham University, New York. The plant manager in charge of chemical manufacturing is Gary Reid, Ph.D., a graduate of the University of New Brunswick. Julien Gaudin, Ph.D. (Waterloo), is director of diagnostic manufacturing, and Praful Patel, Ph.D. (University of Saskatchewan) is head of the enzyme division. The company employs twenty-two people.

## CHEMICAL MANUFACTURING

The chemical manufacturing facility is equipped with glass lined Pfaudler reactors with a temperature range of  $-20^{\circ}\text{C}$  to  $150^{\circ}\text{C}$ , distillation systems, vacuum drying ovens, vacuum pumps, filtering equipment, and cold rooms. Quality control equipment available includes gas chromatographs and UV-Visible spectrophotometers. We also have access to infrared and nuclear magnetic resonance spectrophotometers. Fine chemicals currently being produced include p-nitrophenyl-phosphate salts,  $\gamma$ -glutamyl-p-nitroanilide, PDT disulfonate (Ferozine), dithiothreitol (DTT), dithioerythritol (DTE), phosphoenolpyruvate, monocyclohexylamine salt, Ferene<sup>®</sup> a superior novel iron reagent,

(3-(2-pridyl) -5, 6-bis(2-(5-furyl sulfonic acid))-1,2,4, triazine, disodium salt), Fast Red PDC salt; Azo Methine H, and Methoxy PMS.

## DIAGNOSTIC REAGENTS FOR CLINICAL CHEMISTRY

The company manufactures chemical diagnostic reagent systems suitable for use on manual or automated systems such as centrifugal analyzers. Equipment available for diagnostic production and quality control include; freeze dryers, automatic dispensers, and several spectrophotometers. The company currently manufactures analytical systems for the determination of acetaminophen, acid phosphatase, albumin, alkaline phosphatase, ALT, AST, bilirubin, BUN/urea, calcium, chloride, cholesterol, creatine kinase, creatinine, ethyl alcohol,  $\gamma$ -GT, glucose, HDL, iron & TIBC, LDH, magnesium, <sup>5</sup>Nucleotidase, phosphorus, salicylate, total protein, triglycerides, uric acid and vanilmandelic acid (VMA) systems.

Analytical standards in S.I. units are available for calcium, chloride, cholesterol, creatinine, glucose, phosphorus, triglycerides, urea/BUN and uric acid. Reagents are also available for Beckman Analyzers such as BUN and glucose for systems 1 and 2, and for Astra 4 and 8 analyzers. A number of reagents for Technicon systems are also manufactured including LDH/NADH, MDH/NADH, and MDH/LDH/NADH. Substrates are also available for the determination of CK and LDH Isoenzymes.

## ENZYMES

Several enzymes are currently isolated including glutamate dehydrogenase (GLDH), Urease, Cholesterol Esterase, Glycerol phosphate dehydrogenase and peroxidase. The isolation of several other enzymes is currently under investigation. Pilot plant facilities available include freeze dryers, fraction collectors, chromatographic equipment, centrifuges, plate coolers, filter presses and jacketed tank facilities to 400 liters. The Company also offers for sale a number of additional enzymes including cholesterol oxidase, diaphorase, glucose oxidase, G-6 PDH (L.M.) G-6 PDH (yeast), glycerol kinase, hexokinase, lipase, and malate dehydrogenase.

## BIOCHEMICAL REAGENTS

We currently bulk break, quality control, and package a number of fine biochemicals in various sizes, such as NAD, NADH, NADP, ATP, AMP, Tris buffer, albumin, AMP buffer, creatine phosphate, and Ammonium pyrrolidine dithiocarbamate, among others.

## CONTRACT RESEARCH

We are interested in contract work in the area of clinical diagnostics, fine chemicals or enzymes, and invite your inquiries.

## DIAGNOSTIC CHEMICALS LIMITED

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Actively interested in export sales