

**Manufacturer and Product Information**

Mission Diagnostics  
A Division of Diamond Diagnostics, 333 Fiske Street, Holliston, MA.  
**For Technical Assistance call:**  
Diamond Diagnostics Technical Services at 1-508-429-0450

**Intended Use:** CO<sub>2</sub> Acid Reagent is used in conjunction with CO<sub>2</sub> Alkaline Buffer for the quantitative determination of total carbon dioxide in serum and plasma on the Beckman Synchron CX & Delta.

**Summary And Principle:** This product is intended to serve as a functional equivalent to pre-existing material distributed by the Original Equipment Manufacturer (OEM).  
  
The sample is mixed with the high ionic strength Electrolyte Buffer. This dilution minimizes variation of the activity coefficients of the analytes to be measured. Before the diluted sample exits the flow cell, it is mixed with acid, causing the dissolved carbon dioxide to out gas. Some of the CO<sub>2</sub> gas traverses the silicon rubber membrane of the CO<sub>2</sub> electrode and lowers the pH of the Alkaline Buffer. The rate of the pH change is directly proportional to the original CO<sub>2</sub> concentration of the sample.

**Reagents:** CO<sub>2</sub> Acid Reagent, BK-443330D, 2000 mL  
**Containing:** CO<sub>2</sub> Acid Reagent is an aqueous solution containing: 6 mol/L sulfuric acid, surfactant and preservative.

**For *in vitro* diagnostic use only**

**Cautions:** Exercise normal laboratory precautions. If contact occurs with skin, rinse affected area with water. If contact with eyes occurs, immediately rinse with copious amount of clean water or eye rinse. In cases of accidental ingestion, contact a physician immediately.

**Stability:** Package stability (expiration date) is listed on the product label. The product should not be used beyond this date. Store upright at room temperature, 18°-25 °C.

**Procedure**

**Procedure:** The product is manufactured in a ready to use form. It is intended to serve as a direct replacement to pre-existing materials distributed by the OEM. For a detailed description of the use of this reagent, refer to the Instrument's Operator Manual.

**Quality Control:** Diamond Diagnostics suggests the use of commercially available control material with results assayed for the instrument used. Controls should be run at Normal and Abnormal levels. Diamond Diagnostics suggests measuring controls before patient samples are run and following instrument maintenance.

**Limitations**

**Limitations:** If the instrument fails calibration or controls do not measure within acceptable range when Diamond Diagnostics products are used, Diamond Diagnostics suggests the following:

Verify that the internal calibrators used to standardize the instrument are correct for the instrument, have adequate expiration, and do not contain visually evident contamination.

Follow the procedures delineated within the Operator's Manual listed under Troubleshooting.

Ensure that all appropriate Maintenance Procedures, as listed in the Operator's Manual, have been performed.

If problems still exist, contact Diamond Diagnostics' Technical Service Department.

