

## **Naphtha, Ethanol and Diesel Pipeline Corrosion Protection and Monitoring Tools**

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### **Resumo:**

Pipelines are used economically and safely to transport crude oil and finished or intermediate products. Proper cathodic protection and materials of construction have been developed to protect pipelines from exterior corrosion. However, the fluids that are transported in the pipelines may contain water, oxygen, acids, bases, or other polar compounds that facilitate internal corrosion. Corrosion can be measured many ways.

Corrosion coupons are a passive reactive method to determine the corrosion rate over a long period of time but may not identify the degree of pitting that could cause a pipeline failure. Standardized bench tests such as the NACE TM 0172 have been developed as a preventative method to determine the corrosivity of the fluid being transported.

On-line corrosion measurements are the most proactive method to obtain real-time corrosion rates and identify corrective action to prevent corrosion and subsequent hazards from loss of pipeline system integrity. The selection of a method for controlling pipeline corrosion may depend on the fluids transported, the potential for water or oxygen exposure, and the existing condition of the pipeline.

**Palavras-chave:** corrosão, inibidor, polidutos, monitoração, refinaria, petróleos,