# BetzDearborn\* DCL30

# **Dechlorinating Agent for Industrial Membrane Applications**

#### **Description and Features**

BetzDearborn\* DCL30 is a very cost-effective product used to remove free and combined chlorine from reverse osmosis and ultrafiltration feedwaters. This liquid product is a high quality solution of sodium bisulfite (NaHSO<sub>3</sub>).

Feedwaters to membrane systems often contain chlorine to treat and prevent microbiological growth prior to the membrane separation process. This chlorine, however, can irreversibly damage thin film composite membranes by oxidizing the membrane surface. The sodium bisulfite in BetzDearborn DCL30 quickly deactivates chlorine and protects membranes from damage.

**Note:** For potable or food-grade applications, BetzDearborn DCL32 should be used. See product fact sheet for maximum use levels and details

#### **Chemistry of Dechlorination**

Deactivation of chlorine by sodium bisulfite:

NaHSO₃ + HOCl → NaHSO₄ + HCl sodium hypochlorous sodium Hydrochloric bisulfite acid bisulfate acid

## **Application**

4.44 ppm of BetzDearborn DCL30 are required to remove 1 ppm of chlorine, measured as total chlorine.

BetzDearborn DCL30 application dosages should be limited by the chlorine demand. It has been observed that an excess of sodium bisulfite in the RO

feedwater may increase the incidence of microbiological growth in membrane systems.

Your GE representative can assist you with identifying chlorine levels in your process and in defining the dosage requirements for BetzDearborn DCL30.

#### **Stability**

Please refer to the Safety Data Sheet for stability information. The product may be slowly degraded by oxygen after the package is opened; the rate of degradation increases with higher temperatures. When using in an open day tank, do not use agitation and monitor the active concentration on a weekly basis. The product stability will decrease if diluted; consult with your GE representative to determine the optimum dilution concentration and solution stability for your application.

## **Packaging Information**

BetzDearborn DCL30 is a liquid material, available in a variety of containers and delivery methods. Contact your GE representative for details.

## **Safety Precautions**

A Material Safety Data Sheet containing detailed information about this product is available upon request.

Corrosion-resistant materials should be used for the storage and handling of this product. Discuss recommended materials of construction with you GE representative.

