### CAUSTIC SODA REPLACEMENT

#### TWIN CSR CLEANER CONCENTRATE

Twin CSR Cleaner is part of the "Environmentally Responsible" modified alkali product line that has comparable abilities of caustic solutions while reducing the hazardous exposure and corrosion properties.

#### **APPLICATIONS**

Twin CSR Cleaner can be utilized in any situation where the pH of the fluid needs to be adjusted Suppressing Calcium & Magnesium in hard waters, H2S/CO2 sequestration in drilling fluids, caustic scrubbers.

Reducing corrosion in plants & pipelines, Bitumen extraction in Oilsands, ASP Water Floods, Crosslinked Borate fracturing systems, Enhance polymer hydration properties, Degreaser/Cleaning Agent, Neutralizing Agent

#### FEATURES AND BENEFITS

- Eliminates use of caustic soda bags
- Comparable pH control to a 25% caustic solution, but with a -45°F freeze point
- Improved steel/aluminum corrosion compared to 25% caustic solution
- NSF/ANSI 60 approved for water treatment
- 1:30 CSR DILUTION REPLACES SODIUM HYPOCHLORITE 12.5%

#### TYPICAL PHYSICAL PROPERTIES

Appearance
Specific Gravity
Freezing Point
Boiling Point
pH
Solubility in Water
Shelf Life

Amber Transparent Liquid
1.29 +/- 0.02
-43.6°F (-42°C)
> 212°F (100°C)
~ 13.0
Complete
~ 1 Year

## **HEALTH, SAFETY & ENVIRONMENT**

- Low aquatic toxicity
- NSF/ANSI 60 Approved (USA)
- Biodegradable (OECD 301F) > 42% 10 days
- Toxicity (OECD 202) > 100 mg/L
- North Sea Approved (NEMS/Cefas)



# SAFETY, STORAGE & HANDLING

Twin CSR Cleaner should be stored long-term in sealed drums or IBC totes. Fittings and valves should be HDPE, brass, or stainless steel.

Twin CSR Cleaner is considered "corrosive" under the Transportation of Dangerous Goods regulations. Class 8, Packing Group II placards and labels will be displayed. Consult SDS for complete handling instructions.

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