



HYBRID CHEMICAL  
TECHNOLOGIES

# CATIONIC ANTI-SLUDGING AGENT

## HCAS-1

HCAS-1 is a cationic anti-sludging agent used as the primary component in a cost-effective cationic hydrochloric acid package system. It has been specifically developed for use in treatments as high as 28% HCl and compatibility in problem areas such as the Swan Hills.

## **TREATMENT**

HCAS-1 is typically used between 3.0 and 7.0 L/m<sup>3</sup>, depending on the concentration of hydrochloric acid and properties of the oil. Generally, no additional iron control or demulsifying surfactants are required.

## **PERFORMANCE**

28% HCl, Swan Hills Oil

5000 ppm Fe<sup>3+</sup>

80°C

### **HCAS-1 Cationic System**



5 Minute  
Emulsion Break

No Sludge

No Iron Control or Surfactant Required

### **Traditional Anionic System**



10 Minute  
Emulsion Break

Heavy Sludge

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