



# PRODUCT DATA SHEET

## Op-T-Con CS 3001 Short Term Clay Control

### Description

**CS 3001** is a specialized liquid product designed specifically for use as a replacement for bagged potassium chloride (KCl). It provides excellent shale and clay control without the logistics, handling and mixing problems associated with large volumes of bagged KCl. **CS 3001** is compatible with all gels, crosslinkers and breaker systems typically utilized in well drilling, stimulation and work over operations. It will not affect fluid pH and being non-surface active, does not adversely affect formulation wettability or create any type of a foaming problem. **CS 3001** may be used in fresh water, acid or brine systems and will not hinder the performance of acid corrosion inhibitors.

While the product does not contain any potassium, **CS 3001** is composed of a sophisticated, mildly cationic complex that functions as KCl to control shale and clay hydration. **CS 3001** may be easily utilized in “on the fly systems” to eliminate pre-mixing and leftover brine disposal problems. If the product is mixed in fresh water and no salts are added, the fluid can be easily disposed of without adverse effect on the environment. A 2% KCl equivalent solution of **CS 3001** contains only 165 mg/L chloride ion. This significantly reduces the risks associated with the use of KCl fluids. **CS 3001** is effective for the smectite, illite and mixed layer clay minerals, those commonly found in shale formations.

### Physical Properties

Appearance:	Clear liquid	Boiling Point:	>98.9°C (210°F)
Specific Gravity:	1.103 ± 0.05	Pour Point:	<-40°C (-40°F)
Solubility in Water:	Soluble	pH:	6.5-8.0

### Application

**CS 3001** is a finished product that is ready for field application. It may be utilized as is or diluted 50:50 with fresh water, if desired. **CS 3001** is typically applied at a concentration of 0.5 to 10 litres/m<sup>3</sup> (GPT) of fluid depending on the percent KCl being replaced, shale and clay quantities present in the well bore and the operation being performed.

Typical Loadings (L/m <sup>3</sup> )	Capillary Suction Time (sec)	KCl Equivalent (%)
2.0	33.2	3
4.0	20.7	5

### Availability

**CS 3001** is available in 20 litre pails or 1000 litre tote containers. Refer to the product label, and the Material Safety Data Sheet to outline the proper handling of this product.

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