

ORGANIC CHLORIDE TEST METHODS

Supplemental Modification to Industry Organic Chloride Test Methods for determination of Total and Inorganic Chloride content.



The challenges facing the crude oil market include the impact of chemical species on refineries, such as catalyst poisoning and air corrosion; example of this is excessive total chloride crude oil that can cause corrosion and has detrimental effects on catalysts.

The organic chlorides can form hydrochloric acid in hydrotreating or reforming reactors. The acid accumulates in condensing regions of the refinery causing damaging corrosion. Organic chlorides are not known to be naturally occurring in crude oil.

Trace Chloride techniques were originally developed for petrochemicals. ASTM has developed standard test methods for

determination of Organic Chloride content in the 204°C naphtha fraction of crude oil. Refiners also require Organic Chloride content in heavy, viscous opportunity barrels which are being blended into crude oil but don't have a naphtha fraction. The Intertek Test Method (ITM3477) provides a supplemental modification to methods ASTM D4929 and D8150 allowing additional sample preparation followed by performance of these industry accepted methodologies. This ITM overcomes the hurdles of running heavy, viscous samples while still limiting significant potential interferences and maintaining high method precision.

OUR TESTS

TESTING FOR CHLORIDE

- Potentiometric after Sodium biphenyl reaction
ASTM D5194
UOP588
- Microcoulometry
UOP799
ASTM D5808
- X-Ray
ASTM D7536
- Ion Chromatography
ASTM D7359

TESTING FOR ORGANIC CHLORIDE ON CRUDE OIL:

- ASTM D4929 Procedure A
- ASTM D4929 Procedure B
- ASTM D4929 Procedure C
- ASTM D8150

CRUDE OIL TEST FOR ORGANIC CHLORIDE

HEAVY FUEL OIL TECHNIQUE FOR ORGANIC CHLORIDE ITM 3477:

- D4929 A, B, C, or D8150

Our capabilities in the U.S. include:

Laboratory	Biphenyl reaction (D5194, UOP588, or D4929A)	Combustion Microcoulometry (D5808, UOP799, or D4929B)	CHLORA XRF (D7536 or D4929C)	Combustion Ion Chromatography (D7359 or D8150)
Channelview	X	X	YES	YES
Corpus Christi	X	YES	X	YES
Cushing	X	YES	YES	X
Deer Park	YES	YES	X	YES
Gonzales, La.	YES	X	YES	YES
Midland Texas	X	X	YES	X
Nederland	X	YES	YES	X
New Orleans, LA	X	YES	YES	YES
New York Harbor	YES	X	X	X
Philadelphia	YES	X	X	X
Signal Hill	X	X	YES	X
Texas City, Texas	X	YES	YES	X

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