Titra-Lube® TAN

On-Site Oil Analysis

Reformulated to Correlate with the New ASTM D-664-04 Method

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Condition Monitoring of Industrial Oils

Titra-Lube® has been reformulated to correlate with the new ASTM D-664-04 method.

ASTM continuously modifies analytical methods in response to the changing needs of industry. This is true for ASTM Method D-664, for the determination of acid number in lubricating oils. Dexsil has recently updated the TitraLube TAN on-site test kits to correlate with the current method, D-664-04

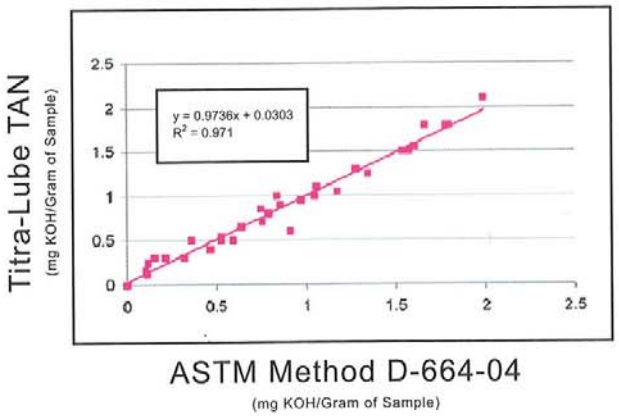
Titra-Lube TAN reagents are pre-measured, sealed in glass ampules and quality controlled to assure accurate and consistent results. Our environmentally friendly reagents can be disposed of in normal laboratory waste, eliminating special requirements for hazardous waste disposal.

COMPARISON STUDIES

Titra-Lube TAN vs. ASTM Method D-664-04

In a recent comparison study, oil samples, both unknowns and spikes, were analyzed both by ASTM Method D-664-04 and the Titra-Lube TAN kit. The results, tabulated below, were compared using a standard regression analysis.

SAMPLE ID	TAN [Buffer Pot.]	TAN Kit (Mod.)
EP220	0.757	0.7
EP220	0.749	0.85
EP220	0.789	0.8
RENOCUT 756HR	1.661	1.8
RENOCUT 756HR	1.79	1.8
RENOCUT 756HR	1.778	1.8
RENOCUT 305M	0.154	0.3
RENOCUT 6546NC	0.856	0.9
BD.0100 BIOD	0.105	0.175
WOLF HEAD ATF	1.343	1.25
LOG SPLITTER	1.173	1.05
GAULIN PUMP	0.914	0.6
TELLUS Oil	0.592	0.5
FUCH MIN. OIL	0.122	0.25
MOBIL B/C Oil	0.112	0.125
HYDRALUBE 68AW	0.466	0.4
LUSCOCUT 756HR	1.54	1.5
LUSCOCUT 415	0.218	0.3
EP COMP. 220(OLD)	1.986	2.1
LUSCOCUT 305A	0.837	1
OXIDIZED OIL (No Add.)	0.363	0.5
DIALA A	0.006	0
57-151B (Benzoic Acid)	1.274	1.3
57-152A (Benzoic Acid)	0.972	0.95
57-152B (Benzoic Acid)	0.644	0.65
57-152C (Benzoic Acid)	0.322	0.3
57-152D (Benzoic Acid)	1.572	1.5
57-152E (Benzoic Acid)	1.048	1
57-152F (Benzoic Acid)	0.53	0.5
57-153B (Oleic Acid)	1.604	1.55
57-153C (Oleic Acid)	1.063	1.1



The results for the Titra-Lube TAN were found to be statistically indistinguishable from the D-664 results with a correlation coefficient (R^2) of 0.97. As shown in the above graph, the slope of the regression line was 0.97 and not statistically different from 1 and the intercept (0.03) was not statistically different from 0, indicating that the kit method is accurate and shows no systematic bias relative to the lab method.

Titra-Lube® TAN

Quantitatively Determines Total Acid Number in Lubrication Oil and Other Hydrocarbon Based Fluids

Incorporate Titra-Lube TAN in your maintenance schedule to detect acid buildup in your equipment before problems develop. Changing machine fluids before corrosive acids build up will protect your equipment from time consuming and costly repairs. Designed to be used in the lab or on the job site, results are achieved in less than 5 minutes. All reagents are premeasured and sealed in glass ampules for consistent and accurate results. The colorimetric end point is carried out in the aqueous phase so that oil color does not interfere with the test. All reagents are non-hazardous and contain no F series solvents.

TAN Units Read Directly From Burrette

On-Site Oil Analysis

For Acid Buildup In:

- Turbine Oils
- Hydraulic Oils
- Compressor Oils
- Other Hydrocarbon Based Fluids

Product Features

- Range 0-2 TAN units (mgKOH/gram of sample)
- Results in less than 5 minutes
- All reagents non-hazardous
- No F series solvents
- Premeasured reagents
- Reagents sealed in glass ampules
- Correlates with ASTM D-664-04
- On-site analysis
- No training required

DEXSIL®

OTHER CONDITION MONITORING PRODUCTS

TITRA-LUBE TBN®

ASTM Method Number D-5984-96

Quantitatively Determines Total Base Number in Industrial Oils

TBN is the measure of reserve alkalinity (base) of oils found in the form of additives. These additives combat the corrosive effects of sulfur-containing fuels. All liquid fossil fuels contain levels of sulfur from negligible quantities up to 5% or more. Higher sulfur levels in the fuel mean shorter usable lifetime of the oil.

Range: 0 - 20 TBN Units (mgKOH/gram of sample)

HYDROSCOUT®

Quantifies Water in Industrial Oils

DEXSIL has developed the HydroScout System, a new easy-to-use method to quantify water in industrial and lubricating oils. Designed to be used on-site or in the laboratory, results are obtained in less than five minutes. All reagents are environmentally safe and can be disposed of in normal waste.

Range: 50 - 10,000 ppm total water

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TITRA-LUBE® TAN

Quantitatively Determines Total Acid Number In Lubricating Oil And Other Hydrocarbon Based Fluids

Oxidation of oils, such as lubricating, hydraulic, pump and other oils, is one main cause of mechanical malfunction. These oils can be analyzed for total acid number quickly and easily by incorporating Titra-Lube TAN test kits in your preventive maintenance schedule. Accurate monitoring of fluids for increased acid number can reduce costly repair or replacement of equipment.

Designed to be used by non-technical personnel, the kit can accurately detect acid build-up in less than 5 minutes at the job site. Titra-Lube TAN closely matches results obtained by more costly laboratory methods such as ASTM Method D-664.

Titra-Lube TAN contains no F series solvents. All premeasured reagents are non-hazardous and sealed in glass ampules for consistent, accurate results. Oil color will not interfere with the test because the colorimetric endpoint is carried out in the aqueous phase. The test covers the range of 0 - 2 TAN units (mg KOH/gram of sample) and comes complete with everything necessary to perform one test.

Analytes	**Total Acid Number**
Matrix	**Lubricating Oils, Industrial Oils, BioDiesel**
Detection Method	**Quantitative Colorimetric Titration**
Action Levels	**0-2 TAN Units (mg KOH/gm sample)**
MDL	**0.18 TAN Units**
MQL	**0.50 TAN Units**
Overall Accuracy	**10% +/- MDL**
Analysis Time	**5 minutes**

Catalog #

Titra-Lube TAN **TI-TAN**
(Patent Pending)
Packaged 20 kits to a shelf pack,
80 kits per case. Minimum order is 20 kits.
All orders must be in multiples of 20 kits.

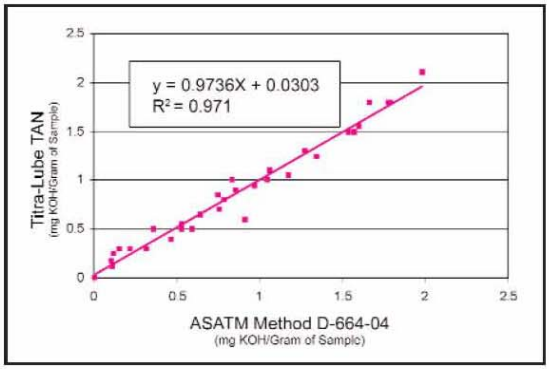
Titra-Lube TAN vs. ASTM Method D-664

The following chart illustrates a direct comparison between results obtained with the Titra-Lube TAN Kit and those obtained by laboratory method ASTM D-664. Each result is the average of three tests. Range for the Titra-Lube TAN Kit as configured is 0 to 2 mg KOH/gsample.

Sample	Method D-664	Titra-Lube TAN
Cutting Oil 1	.367	.325
Cutting Oil 2	.129	.150
Cutting Oil 3	.084	.100
Cutting Oil 4	1.204	1.150
Honing Oil 1	.626	.550
Extreme Pres. Compound	1.640	1.500
Oxidized Oil	.236	.200
Crankcase Oil	.185	.150
Hydraulic Fluid 1	.208	.200

(TAN Average of 3 Runs Each)

Titra-Lube TAN vs. ASTM Method D-664-04



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