

DEXSIL[®]

ISO 9001 Registered



On-Site Environmental Testing

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DEXSIL CORPORATION QUALITY POLICY

Dexsil Corporation is a world leader in the manufacture of environmental test kits and is committed to developing, manufacturing and marketing accurate and cost effective products for on-site testing of environmental pollutants. Our mission is to transform complicated, time consuming and expensive laboratory methods into easy-to-use, reliable test kits that offer our customers an economical approach to solving their analytical needs. We believe that through increased testing and awareness, the general condition of the environment will improve.

Dexsil Corporation has built a reputation in the environmental community for developing high quality test kits. We maintain our reputation as an industry leader by continually improving our manufacturing standards and employing tough quality control in all aspects of our business.

GOALS

- Supply a high quality, reliable, cost-effective, and timely product.
- Provide high quality laboratory services.
- Respond to customer's needs by continually developing new, innovative products.
- Achieve customer satisfaction by providing quality technical support.

Dexsil Corporation believes that quality is the responsibility of all members in the organization and is fundamental to meeting our commitments to both our customers and ourselves.

GUIDELINES

- The customer is our most important asset. We will respond to our customers' needs and provide continual support to ensure a lasting relationship.
- Quality is achieved by educating all employees of their job responsibilities, supplying them with the necessary tools, and allowing them to work in a positive, safe, clean environment.
- Employee dedication to his or her tasks and a sense of well-being is achieved by providing a properly managed workplace.
- Consistent, high quality materials and timely service are obtained by working with dependable suppliers.
- Research is our commitment to our future.
- Set measurable objectives and review consistency with the Quality Policy.

PCB / Organic Chlorine Contamination in Transformer Oil, Soil, Groundwater & Surface Wipes



On-Site Testing

PCB – polychlorinated biphenyl – was used as electrical insulating fluid in transformers, capacitors, and other electrical apparatus under various trade names beginning in the 1930s. PCB oil has a very stable molecular structure making it ideal for use in high energy equipment. However, identification of serious potential health risks associated with PCB exposure led to a complete ban of the manufacture and use of PCBs in 1978. Decades of equipment leaks and improper handling/disposal have resulted in a contamination legacy due to the stability of PCB in the environment that continues to be a health and environmental concern. Dexsil's screening tools offer quick and accurate means of identifying PCB contaminated equipment and environmental samples to foster faster removal/remediation.

The **Clor-N-Oil 50** test kit was introduced in 1983 and has become the standard for PCB screening of dielectric fluid worldwide. The semi-quantitative test is easy to use on-site to quickly and accurately assess if an oil sample is above/below the 50 ppm PCB regulatory limit. In addition to the original Clor-N-Oil 50 test kit, tests for 20 and 500 ppm are also available. A natural offshoot of the Clor-N-Oil test is the **Clor-N-Soil 50** test for detecting PCB in soil samples allowing for rapid response at spill sites. The go-no go tests are easy to use on-site and everything needed to process samples is included in the kit boxes.

The **L2000DXT Analyzer System** offers a quantitative screening option using the same basic chemistry as the Clor-N-Oil kits. The versatile, electrochemical L2000DXT system can be used for analysis of transformer oil, soil, groundwater, and surface wipes. The system is field portable and provides results from 3 (MDL) to 2000 ppm. The touch-screen analyzer uses on-screen prompts for ease-of-use. Results are recorded to the internal memory and can be saved to an external flash drive for later recall.

PCB Accessories

In addition to methods of on-site analysis, Dexsil also offers some other items to facilitate sample collection, and labels for equipment identification.

Retrieving an oil sample from a transformer may sound like an easy task, but quite often the oil itself is difficult to reach. Dexsil produces two types of disposable pipettes that are long enough to reach the oil in most transformers and thin enough to enter through the pressure relief valve. Each pipette has 12" tubing (choose flexible or rigid) connected to a bellows reservoir that can hold up to 20 mL of transformer oil. Custom lengths are available. 20 mL glass vials for containing samples are also available in boxes of 40 or 100. Equipment labels are available for identifying Non-PCB equipment (<50 ppm), PCB Contaminated equipment (50-500 ppm), and PCB Equipment (>500 ppm).

Dexsil's Wipe Test Kit provides everything needed to facilitate the collection of surface samples for laboratory GC analysis. The kits are designed to eliminate cross-contamination and make it easy to follow EPA sampling protocol. Gauze pads, forceps, storage vials, and individual vials of chromatographic grade hexane are supplied for each test. Each box also contains PCB resistant gloves and goggles for safety consideration during collection.

Clor-N-Oil®

PCB Screening Kits For Electrical Insulating Fluids.



U.S. EPA SW-846 Method 9079

Designed for easy use in the field, Clor-N-Oil is a fast, accurate method to test electrical insulating fluid (transformer oil) for the presence of PCB. Each kit contains everything necessary to perform the test with results in 5 minutes. All premeasured reagents are sealed in glass ampules for safe, fast, consistent results.

There are three Clor-N-Oil test options; 20 ppm, 50 ppm and 500 ppm. To eliminate the possibility of false negatives, Dexsil calibrates all Clor-N-Oil test kits on Aroclor 1242 which contains the least amount of chlorine - 42% by weight - of the Aroclors found in electrical insulating fluids. Calibrating the kits based on Aroclor 1242, provides conservative results and prevents the risk of false negative reporting. When Clor-N-Oil test kits turn purple, you can be assured your oil sample is below the action level.

Note: Clor-N-Oil test kits are for testing dielectric fluid only. The kits cannot be used to test lubricating oils.

Analytes	PCBs
Matrix	Transformer Oil
Detection Method	Fixed endpoint colorimetric titration
Interferences	Non-analyte chlorine
Action Levels	Above or Below 20, 50, 500 ppm
Analysis Time	Less than 5 minutes

	Catalog #
Clor-N-Oil 20	CL-020
Clor-N-Oil 50	CL-050
Clor-N-Oil 500	CL-500

Packaged 20 kits to a shelf pack/80 kits per case.
Minimum order 10 kits.
Orders greater than 10 kits must be in multiples of 20.

NOTE: This product contains mercury. Dispose according to local, state or federal laws.



WARNING: Reproductive harm.
For more information visit www.P65Warnings.ca.gov

Clor-N-Soil®

PCB Screening Kit For Soil



Laboratory testing is expensive, and results can take several days or longer. PCB concentration, extent, and location of site contamination are all critical points in determining further action. Clor-N-Soil PCB field screening kits can help make those decisions on-site in a matter of minutes.

Clor-N-Soil is a self-contained test kit that allows field personnel to obtain go-no go results, on-site, in less than 10 minutes, without the need for additional equipment. All reagents are premeasured and sealed in glass ampules for consistent, accurate results. Clor-N-Soil can be used to test any type of soil including sand, topsoil, sediment, and clay at a fraction of the time and cost of traditional laboratory testing.

The kits are easy to use in the field – no special training is needed. The kits are calibrated to provide conservative results and prevent false negative reporting. Colorimetric results are easy to interpret – a purple color change indicates less than 50 ppm – no purple result is above 50 ppm.

Analytes	PCBs
Matrix	Soil
Detection Method	Fixed endpoint colorimetric titration
Action Levels	Above or Below 50 ppm
Analysis Time	10 minutes

	Catalog #
Clor-N-Soil 50	CS-OIL

Packaged 12 kits to a shelf pack/48 kits per case.
Minimum order is 6 kits.
Orders greater than 6 kits must be in multiples of 12.

NOTE: This product contains mercury. Dispose according to local, state or federal laws.



WARNING: Reproductive harm.
For more information visit www.P65Warnings.ca.gov

L2000[®]DXT Analyzer

Screening Method for PCB and Chlorinated Organics



U.S. EPA SW-846 Method 9078 for Soil

The L2000DXT Analyzer is a versatile field portable instrument incorporating an ion specific electrode that can quantify chlorinated compounds in four matrices; transformer oil, soil, water, and surface wipes. The instrument has conversion programs for all major Aroclors and most chlorinated solvents and pesticides, simply select the analysis program for the matrix and analyte of interest from the menu. For less common analytes or for custom measurement protocols, user defined methods can be easily built and stored using the method development menus.

The L2000DXT has a 7" backlit LCD touch screen with easy to follow prompts. The unit weighs less than 2 lbs., and with its small footprint, 8.5" x 5.5" x 2", is ideal for in-field use where work space may be limited. It is powered by 1.2V Ni-Mh rechargeable batteries, and comes with a charger available for 115V or 220V power. The unit is stored in a sturdy carrying case which includes the chloride ion electrode, 5 ml pipettor, electronic balance, timer, vial rack, and user's manual. The L2000DXT system comes complete with everything needed for testing, including one pack of reagents for the matrix being tested. Specify reagent choice when ordering.

Analytes	PCB, Chlorinated Organics
Matrix	Transformer Oil, Soil, Water, Surface Wipes
Detection Method	Electrochemical
Action Levels	Oil: 3 to 2000 ppm Soil: 3 to 2000 ppm Water: 20 ppb to 2000 ppm Wipes: 3 to 2000 ug/100 cm2
Analysis Time	Oil: 5 minutes Soil, Water, Wipes: 10 minutes

L2000 PCB/Chloride Analyzer System

Complete system includes one pack of your choice of reagents. Choose from the list below:

When ordering specify:

Option 1 - 40 Oil Reagents	LP-200-01
Option 2 - 20 Soil Reagents	LP-200-02
Option 3 - 20 Water Reagents	LP-200-03
Option 4 - 20 Wipe Reagents	LP-200-04



WARNING: Cancer.
For more information visit www.P65Warnings.ca.gov

Catalog #
LP-200

L2000[®] Reagents for Dielectric Fluid



When quantitative information is needed, dielectric fluid can be screened for PCB concentration on-site using the L2000DXT Analyzer. Preparing an oil sample for analysis is simple, and the L2000DXT provides quantitative results in ppm in less than 5 minutes. The L2000DXT test method involves reacting an oil sample with a sodium reagent to strip the covalently bonded chlorine from the PCB molecule converting it to inorganic chloride. The resulting chloride is then detected and quantified using a chloride ion specific electrode. The L2000DXT analyzer then mathematically converts the chloride reading to the equivalent concentration of the target analyte based on the percent chlorine associated with the analyte. Conversion programs are available for the most common Aroclors and Askarel A. Custom conversion programs can be built for less common analytes not included on the L2000DXT menu (instructions are included in the user manual).

Reagents are available by packs of 40 and bulk packs of 200 tests. Everything needed for analysis is included.

Analytes	PCBs
Matrix	Transformer Oil
Detection Method	Electrochemical
Action Level	3 to 2000 ppm
MDL	3 ppm
MQL	9 ppm
Interferences	Non-analyte chlorine
Overall Accuracy	10% +/- MDL
Analysis Time	5 minutes

L2000 Oil Reagents	Catalog #
40 Pack Oil Reagents	LP-ORK
200 Bulk Pack Oil Reagents	LP-ORK-BP



WARNING: Cancer.
For more information visit www.P65Warnings.ca.gov

L2000® Reagents for Soil



U.S. EPA SW-846 Method 9078

Soils contaminated with PCBs and other chlorinated compounds such as solvents, pesticides/herbicides can be tested on-site in just 10 minutes. Screening with the L2000DXT system can greatly reduce the number of samples requiring expensive, time intensive laboratory analysis, allowing for faster decision making in the field regarding delineation, excavation, and remediation.

Collected soil samples are extracted and reacted with a sodium reagent to strip the covalently bonded chlorine from the analyte, converting it to inorganic chloride. The resulting chloride is then detected and quantified using a chloride ion specific electrode. The L2000DXT analyzer mathematically converts the chloride reading to the equivalent concentration of the target analyte based on the percent chlorine associated with the analyte. Inorganic chloride, e.g. road salt, will not interfere with the test. Conversion programs are available for all major Aroclors and most common chlorinated solvents and pesticides. Custom conversion programs can be built for less common analytes not included on the L2000DXT menu (instructions are included in the user's manual).

Note: Some soils, such as wet clays, can pose an extraction problem. For information on dealing with difficult to solvate soils, please see the L2000 Two-Step Soil Reagents.

Analytes	PCBs, Chlorinated Organics
Matrix	Soil
Detection Method	Electrochemical
Action Level	3 to 2000 ppm
MDL	3 ppm
MQL	9 ppm
Interferences	Non-analyte organic chlorine
Overall Accuracy	10% +/- MDL
Analysis Time	10 minutes

L2000 Soil Reagents	Catalog #
20 PackSoil Reagents	LP-SRK
200 Bulk Pack Soil Reagents	LP-SRK-BP



WARNING: Cancer.
For more information visit www.P65Warnings.ca.gov

L2000® Soil Two-Step Extraction



Recommended for Hard to Extract Wet Clays

Soils, such as wet clays, pose an extraction problem with most extraction solvents on the market today. If the extraction solvent cannot thoroughly solvate the soil and remove the contaminant efficiently, an underestimation of the contaminant will occur. To contend with difficult to solvate soils, Dexsil has developed a "Two-Step Extraction Method" that allow clay soils to be solvated efficiently for accurate, reliable results. A study, using the the Two-Step method to extract PCB from lacustrine clay, achieved an extraction efficiency of >78% when compared with soxhlet extraction.

The Two-Step reagent option combines the specialized extraction system with the standard L2000 soil reagents. The total testing process takes about 10 minutes, and results are provided in a range from 3 (MDL) to 2000 ppm. Results are displayed on the L2000DXT screen and saved to the internal memory. Data can also be automatically saved to an external flash drive for uploading to an Excel file for later recall and reporting.

Analytes	PCBs, Chlorinated Organics
Matrix	Soil
Detection Method	Electrochemical
Action Level	3 to 2000 ppm
MDL	3 ppm
MQL	9 ppm
Interferences	Non-analyte organic chlorine
Overall Accuracy	10% +/- MDL
Analysis Time	10 minutes

L2000 2-Step Soil Reagents	Catalog #
20 PackSoil Reagents	LP-SR2
200 Bulk Pack Soil Reagents	LP-SR2-BP



WARNING: Cancer.
For more information visit www.P65Warnings.ca.gov

L2000® Reagents for Groundwater



The L2000DXT analyzer system is an efficient, accurate tool for determining chlorinated organic compound contamination in groundwater. The L2000DXT includes a variety of programmed methods specifically designed for water testing. Extraction efficiencies and conversion factors for over a dozen chlorinated compounds have been programmed into the instrument for accurate in-field results. In addition to the available programmed methods, customized methods can be designed by the user incorporating characteristics specific for site location and analyte.

Field trial and laboratory validation studies show that water analysis using the L2000DXT system compares very well with expensive laboratory methods. This data shows that the L2000DXT can accurately determine the true contaminate concentration in two ranges*: The high range option, using 5 gm water sample, has a result range from (MDL) 5 ppm to 2000 ppm. The low range option requires a 1 litre sample and provides results from (MDL) 20 ppb to 5 ppm. Inorganic chloride will not interfere with the test.

*Note: Result ranges are analyte dependent

Analytes	PCBs, Chlorinated Organics	
Matrix	Groundwater	
Detection Method	Electrochemical	
	<u>High Range</u>	<u>Low Range</u>
Action Level	5 to 2000 ppm	20 ppb to 2000 ppm
MDL	5 ppm	20 ppb
MQL	9 ppm	60 ppb
Interferences	Non-analyte organic chlorine	
Overall Accuracy	10% +/- MDL	
Analysis Time	10 minutes	

L2000 Water Reagents	Catalog #
20 Pack Water Reagents	LP-WRK
200 Bulk Pack Water Reagents	LP-WRK-BP



WARNING: Cancer.
For more information visit www.P65Warnings.ca.gov

L2000® PCB Surface Wipes Option



If waiting for laboratory results for surface wipes is not an option, the L2000DXT system can provide on-the-spot screening in just a few easy steps with results in less than 10 minutes. This test method requires wiping an area 1000 cm²; results are provided in µg PCB/100 cm².

The reagent packs include everything needed for analysis, plus the following items needed for sample collection:

- PCB Rated Gloves
- Safety Goggles
- Disposable Forceps
- Sample Vials
- Gauze Pads
- Chromatographic Hexane
(sealed in individual glass ampules)

Analytes	PCBs
Matrix	Surface Wipes
Detection Method	Electrochemical
Action Level	3 ug/100 cm² to 2000 ug/100 cm²
Analysis Time	10 minutes

L2000 Wipe Reagents	Catalog #
20 Pack Water Reagents	LP-WIP



WARNING: Cancer.
For more information visit www.P65Warnings.ca.gov

PCB Accessories

Wipe Sampling Kit

Dexsil's Wipe Sampling Kit contains everything to collect an accurate surface sample for laboratory analysis. Disposable wipe templates measuring 100 cm² are supplied in square, rectangular, and round configurations for various surfaces.

Disposable forceps, gauze wipe pads, storage vials, and individually sealed ampules of chromatographic grade hexane are provided for each test. The kit also comes with PCB resistant gloves, safety goggles, and a postage paid mailer for use if you choose to send the samples to the Dexsil laboratory.



Wipe Sampling Kit (Contains 8 complete wipes.)

Catalog #
WT-KIT

L2000 Accessories

Individual L2000 components can be ordered separately.



Chloride Ion Specific Electrode
Portable Electronic Balance
0-150 grams

5 ml Pipettor

Timer

Catalog #
PC-B10-14

LP-BAL-00

PC-5ML-PP

ZE-TIM-ER

Sampling And Shipping Items That Take The Hassle Out Of PCB Testing

Cross-contamination, leaky vials, difficult to reach oil, and dangerous reagents can all lead to problems when sampling for PCBs. The products from Dexsil listed below can help you avoid these pitfalls.

Bellows Type Sampling Pipettes

Dexsil offers two types of disposable sampling pipettes for retrieving oil from transformers. One uses a 1/4" diameter stiff tubing and is used primarily when accessing transformers from the top. The other type, with 5/32" diameter flexible tubing, is made specifically for accessing oil through a pressure relief valve or through a resealable punched hole in the side of the transformer. Both pipettes come in standard 12" (30 cm) lengths and are available in longer custom lengths for specific applications.



Catalog #

Stiff Tubing Bellows Pipette (one ft length only) BP-STF-01
Flexible Tubing Bellows Pipette BP-FLX-01

Vials, Labels & Shipping Containers

Dexsil offers PCB-free 20 ml glass vials for storing and shipping oil samples. Pressure sensitive labels for marking PCB, PCB contaminated, and non-PCB equipment are also available. For customers using the Dexsil laboratory, shipping vials and postage-paid mailers are supplied at no charge.



Catalog #

40-PCB Sample Vials MS-VIA-LS
100-PCB Sample Vials MS-VIA-BX
Non-PCB Labels < 50 ppm MS-PCB-00
PCB Contaminated Labels, 50-500 ppm MS-PCB-01
PCB Labels > 500 ppm MS-PCB-02
Postage Paid Shipper with 8 Vials GC-SVM-01

On-Site Tests for Used Oil & Wastewater



- Total Chlorine (Halogens) in Used Oil for Regulatory Compliance
- Organic Chlorine in Wastewater
- Percent Water in Used Oil

Determination of Total Halogens in Used Oil

To be in compliance with federal regulations, 40 CFR 266.40 and 279.44, used oil, to be burned for energy recovery in any boiler or industrial furnace, must contain less than 1000 ppm total halogens. (4000 ppm is the permissible limit if it can be shown that the halogens are not from a listed hazardous waste.) The difference in disposal costs between non-hazardous used oil that can be burned for energy recovery, and a hazardous waste that must be incinerated is huge, so testing is a necessity. The Clor-D-Tect tests kits detect all sources of chlorine; volatile, non-volatile, organic, and inorganic in accordance with the regulatory requirements. The kits have received an EPA method; U.S. EPA SW-846 Method 9077, as well as ASTM Method Number D-5384.

Clor-D-Tect® 1000 is a semi-quantitative test that reveals if a sample contains more or less than 1000 ppm chlorine. **Clor-D-Tect® Q4000** provides a quantitative result in a range from 200-4000 ppm. Additionally, there are two options for those working in a laboratory; **TitraClor®C** and **TitraClor®P**. These methods provide an easy way to perform high precision, low detection limit work on used oil samples containing as little as 50 ppm chlorine providing results in less than 10 minutes.

Quantification of Organic Chlorine in Wastewater

If your waste sample is not oil but mostly water such as, antifreeze, wastewater, bilge water or oil/water mixtures, **Hydroclor®Q** is designed specifically for samples of this nature. Hydroclor Q measure organic chlorine in a range from 200-4000 ppm, but is not sensitive to inorganic chlorine such as sodium chloride. In other words, it will detect the presence of chlorinated solvents, but is not affected by saltwater.

Quantification of Water in Used Oil

Water can be an expensive contaminate in used oil. The **Hydroscout® Analyzer System** is a unique on-site test to accurately determine the total water content before oil is accepted. The method can quantify water in all three states; free, dissolved, and emulsified. There are two test ranges; up to 20% or with an added dilution step, up to 100% water. The method is designed for quick use in the field providing results in just 2 minutes. The Hydroscout system can replace time-consuming laboratory methods and reduce costs associated with solvent disposal.

Clor-D-Tect® 1000

On-Site Screening of Used Oil



ASTM Method D-5384
U.S. EPA SW-846 Method 9077

Clor-D-Tect 1000, under U.S. EPA Method SW-846 Method 9077, provides “go-no go” results at a level of 1000 ppm chlorine. Used oil transporters, generators and facilities that recycle or re-refine used oil can incorporate Clor-D-Tect 1000 into their management of used oil to prevent costly hazardous waste from being mixed with non-contaminated oil. Generators can identify and label their waste oil hazardous or non-hazardous, for proper management and disposal. Designed for use on-site, the test takes less than 5 minutes to run with no special training. Each kit comes complete to perform one test, and all pre-measured reagents are sealed in glass ampoules. Clor-D-Tect 1000 has proven to be an ideal test to spot-check oil before it is transported, accepted, or introduced into larger holding tanks.

Analytes	Chlorine/Chlorinated Organics
Matrix	Used Oil, Solvents, Organic Liquids
Detection Method	Fixed Endpoint Colorimetric Titration
Action Levels	Above or below the 1000 ppm regulatory limit
Interferences	Sulfur may cause false positive results
Analysis Time	5 minutes

Clor-D-Tect 1000
Packaged 20 kits to a shelf pack, 80 kits per case.
Minimum order is 10 kits.
Orders greater than 10 kits must be in multiples of 20.

NOTE: This product contains mercury. Dispose according to local, state or federal laws.



WARNING: Cancer and Reproductive Harm
For more information visit www.P65Warnings.ca.gov

Clor-D-Tect® Q4000

Quantitative Chlorine Screening of Used Oil



ASTM Method D-5384
U.S. EPA SW-846 Method 9077

Clor-D-Tect Q4000, under U.S. EPA Method SW-846 Method 9077, quantifies the chlorine level of used oil between 200-4000 ppm. The kits have been proven invaluable when different oil lots are blended or when the user must know how close a quantity of used oil is to the 1000 ppm or 4000 ppm regulatory level. Clor-D-Tect Q4000 is a proven test to measure chlorine in crankcase, hydraulic, lubricating oils, and diesel, and virtually any hydrocarbon based solvent. The Clor-D-Tect kit Q4000 kit is conveniently packaged with all reagents premeasured and sealed in glass ampoules for safe, consistent results. The test is easy to run with results obtained within 5 minutes – no special training is needed.

Analytes	Chlorine/Chlorinated Organics
Matrix	Used Oil, Solvents, Organic Liquids
Detection Method	Quantitative Colorimetric Titration
Action Levels	200-4000 ppm
MDL	200 ppm
MQL	600 ppm
Overall Accuracy	10% +/- MDL
Interferences	Sulfur may cause false positive results
Analysis Time	5 minutes

Clor-D-Tect Q4000
Packaged 20 kits to a shelf pack, 80 kits per case.
Minimum order is 10 kits.
Orders greater than 10 kits must be in multiples of 20.

NOTE: This product contains mercury. Dispose according to local, state or federal laws.



WARNING: Cancer and Reproductive Harm
For more information visit www.P65Warnings.ca.gov

HydroCLOR Q®

Organic Chlorine Determination for Oil/Water Mixtures and Used Antifreeze/Coolant



HydroClor-Q is a quantitative field test kit designed to measure organic chlorine contamination in oil/water mixtures and used antifreeze. The kit can be used for testing water-soluble cutting fluids, sump and bilge water, antifreeze or any fluid that contains greater than 70% water. HydroClor Q only measures organic chlorine, therefore, inorganic chloride from seawater or other sources, will not interfere with the test. All premeasured reagents are sealed in glass ampoules. The test takes less than 10 minutes to run and quantifies total organic chlorine in the range of 200 ppm to 4000 ppm. This kit is extremely useful for identifying chlorinated solvent contamination in water and wastewater.

Analytes	Chlorinated Organics
Matrix	Water/Oil Mix, Antifreeze
Detection Method	Quantitative colorimetric titration
Action Levels	200 - 4000 ppm
MDL	200 ppm
MQL	600 ppm
Analysis Time	Less than 10 minutes

HydroCLOR Q Catalog #
HY-DRO
 Packaged 12 kits to a shelf pack, 48 kits per case.
 Minimum order is 12 kits. – Must be in multiples of 12.

NOTE: This product contains mercury. Dispose according to local, state or federal laws.



WARNING: Cancer and Reproductive Harm
 For more information visit www.P65Warnings.ca.gov

HydroSCOUT®

Quantification of Water in Used Oil



U.S. EPA SW-846 Draft Method 9001

HydroSCOUT is a field portable test that quantifies water concentration in a variety of matrices; oil, paint, solvents, liquid waste, soil, inks etc. It is a fast, easy, inexpensive test that can be run in the field at the pick up point or in a laboratory setting with minimal training. This method is ideal for accurately determining the true water content in used oil before acceptance or treatment.

HydroSCOUT Analyzer

The hand-held HydroSCOUT meter is programmed to determine water content in used oil over two common ranges: "Program A" covers the range 0.15% (1500 ppm) to 20% v/v. Using the high range dilution vials, "Program B" can measure water up to 100%. Results are displayed in volume percent on an easy to read LCD screen. The meter is menu driven for ease of use. Both programs auto-calibrate and perform other quality control checks to minimize false negative reporting and ensure accuracy.

Analytes Matrix	Water Used Oil, Solvents, Organic Liquids, Lubricating Oils, Industrial Oils, Gasoline
Detection Method	Quantitative Calcium Hydride Reaction
Action Levels	Program A: 0.15% - 20% Program B: 5% - 100%
Interferences	Ethylene Glycol / Acids
Analysis Time	3 minutes

Hydroscout Complete System Catalog #
HS-MTR-01
 Includes analyzer, carrying case,
 40 reagents for Program A, plus one pack
 of high range dilution vials for Program B
Hydroscout Reagents (Program A) **HS-ORP**
Pack of 40 or Case of 160
Hydroscout High Range Dilution Vials **HS-DVP**
(Program B)
Pack of 12

Clor-D-Tect® Q4000 High Range

Field Test Kit for Quantifying Percent Levels of Chlorine in Used Oil



Clor-D-Tect Q4000 High Range is designed to quantify high levels of chlorine in used oil in the range of 0-10% (100,000 ppm). The Clor-D-Tect High Range can be used either onsite or in a laboratory setting to quickly determine chlorine levels before acceptance or incineration of waste occurs. This inexpensive, precise test kit, can replace time consuming and expensive bomb oxidation/ion chromatography and microcoulometric methods.

Performing each test requires a Clor-D-Tect Q4000 kit and a high range dilution reagent purchased separately. The user draws an oil sample using the sampling syringe provided, dispenses it into the dilution vial and mixes well. A sample is then drawn from the dilution vial, added to the Q4000 reaction tube, and the test is run according to the instructions. The result obtained with the Q4000 test must be divided by 400 in order to convert to the percent chlorine in the sample.

Analytes	Chlorine/Chlorinated Organics
Matrix	Used Oil, Solvents, Organic Liquids
Detection Method	Quantitative Colorimetric Titration
Action Levels	0 - 100,000 ppm (10%)
MDL	5,000 ppm (.50%)
MQL	15,000 ppm (1.50%)
Overall Accuracy	10% +/- MDL
Analysis Time	Less than 10 minutes

Clor-D-Tect Q4000 Kit
 Minimum order is 10 kits.
 Standard packaging; 20 kits to a shelf pack, 80 kits per case.
 Orders greater than 10 kits must be in multiples of 20.
 Q4000HR Dilution Vials
 10 Dilution Vials per pack

Catalog #
Q4-000

NOTE: This product contains mercury. Dispose according to local, state or federal laws.



WARNING: Cancer and Reproductive Harm
 For more information visit www.P65Warnings.ca.gov

TitraClor® C • TitraClor® P

Quantitative Chlorine Test for Used Oil in the Laboratory



If you have a laboratory available and want to obtain optimal precision in your chlorine testing, then the TitraClor laboratory tests may be the preferred method. TitraClor kits use chemistry similar to Clor-D-Tect but the sample is weighed on an analytical balance and titrated using a full scale laboratory buret, allowing greater precision and a lower limit of detection. Two different TitraClor tests are available: **TitraClor C** used a colorimetric end-point while **TitraClor P** uses a potentiometric one.

TitraClor covers a range of 50 ppm to 6000 ppm chloride with a precision of +/- 5%. **TitraClor P** is best utilized when an automatic titrator is available to determine the end-point. **TitraClor C** can be used with simply a buret, beaker, and a magnetic stirrer. This method has been proven to provide quick, accurate analysis of chlorine content in oil samples.

Analytes	Chlorine/Chlorinated Organics
Matrix	Used Oil, Solvents, Organic Liquids
Detection Method	Quantitative Colorimetric Titration
Action Levels	50 – 6000 ppm chloride with a precision of +/- 5%
MDL	50 ppm
MQL	150 ppm
Interferences	Sulfur
Overall Accuracy	10% +/- MDL
Analysis Time	5 minutes

TitraClor C
 TitraClor P
 Packaged 10 tests per box.

Catalog #
TI-TRA-CC
TI-TRA-CP

NOTE: This product contains mercury. Dispose according to local, state or federal laws.

TitraClor P



WARNING: Cancer and Reproductive Harm
 For more information visit www.P65Warnings.ca.gov

TitraClor C: Not available in California

Soil Testing

Total Petroleum Hydrocarbons • Chlorinated Organics • Water Content



Total Petroleum Hydrocarbons

TPH site assessment and clean-up requires rapid response. Relying upon laboratory analysis to determine the extent of hydrocarbon contamination is expensive and can take a week or more to receive results. Laboratory methods typically limit the result range to GRO (Gasoline Range Organics) or DRO (Diesel Range Organics). When limiting the analysis to these ranges, heavier fraction hydrocarbons such as fuel oil, motor oil, hydraulic oil, transformer oil, and greases are not included and may result in an underestimation of the true TPH concentration. Dexsil's **PetroFLAG® Analyzer System** is a convenient, field portable test option providing TPH results on-site, in minutes, saving time and money. The PetroFLAG system quantifies both aliphatic and aromatic hydrocarbons within a carbon range from C8-C44. Results are possible from 15 ppm (MDL) up to 20% (200,000 ppm).

Chlorinated Organics/PCB

Finding and determining the extent of contamination at sites with chlorinated organics such as PCBs, chlorinated solvents e.g. dry cleaning fluid, or chlorinated pesticides/herbicides, can be achieved quickly and cost effectively using the **L2000®DXT Analyzer System**. The L2000DXT system is an electrochemical test method combining a reagent system for extracting chlorine from soil samples with a chloride specific electrode to detect and measure the extracted chloride. The analyzer is programmed with conversion factors to convert the extracted chloride value to the ppm equivalent of the target analyte. There are conversion programs for all major Aroclors, Askarel A, and the most commonly encountered chlorinated solvents and pesticides. For less common analytes, or custom measurement protocols, user defined methods can be easily programmed and stored using the method development menus. Analysis results are stored in the internal memory and can be saved to an external flash drive for later recall. The available measurement range is 3 ppm (MDL) to 2000 ppm for soil samples; and groundwater can be tested as low as 20 ppb.

Moisture Content

Nationwide the increasing importance of water conservation cannot be ignored. Some test methods currently available for monitoring soil moisture levels to ensure the efficient use of irrigation water fail to provide data that is precise or specific enough to adequately accomplish the task. Or, in the event of soil sampling for environmental quality analysis, water content of soil samples can have a big effect on test results. The **Hydroscout® Analyzer System** is a useful tool for assessing the water content of soil samples quickly and easily on-site. The Hydroscout system can provide accurate results in a range from 0.25% to 50% in less than 10 minutes allowing faster, more accurate soil assessments.

PetroFLAG® SYSTEM

Total Petroleum Hydrocarbons in Soil



USEPA SW-846 Draft Method 9074

The **PetroFLAG® system** is a field portable analysis method for determining Total Petroleum Hydrocarbon concentration in soil. PetroFLAG detects both aliphatic and aromatic hydrocarbons in a carbon range from C8-C44. The easy-to-use system quantifies all fuels, oils, and greases as total hydrocarbons with results displayed on the PetroFLAG analyzer in parts per million (ppm).

This method is designed to provide rapid site assessment at spill sites, tank removals, and is ideal for non-PCB transformer oil releases due to equipment leaks, accidents, or storm damage. The unique reagent system is designed to provide consistent extraction efficiency for the soil types and field conditions most commonly encountered. The reagents contain NO hazardous CFCs or dyes.

The PetroFLAG meter is a rugged hand-held unit powered by a 9-volt alkaline battery. Approximately 4000 tests can be run on a single battery, providing field dependability. The meter is menu driven with prompts and results clearly displayed on an LCD screen. TPH concentration is determined by utilizing a system of programmed response factors that correlate to the response of specific analytes with the PetroFLAG reagent system. Response factors 2-10 cover most common analytes, and 11-15 are designed for crude oil. For unknown or mixed analytes, choose the option that will provide the most conservative results.

The complete PetroFLAG system includes the PetroFLAG meter, electronic balance, timer, and one box of reagents packed in a lightweight, field portable carrying case. An extra set of calibration solutions, (ProPack) is also included for training purposes.

PetroFLAG Analyzer System

Catalog #
PF-MTR-01



WARNING: Reproductive harm.
For more information visit www.P65Warnings.ca.gov

PetroFLAG Reagents



Each box of **PetroFLAG reagents** includes everything needed to process 10 soil samples and one calibration. The calibration solutions include; one blank and a 1000 ppm hydrocarbon standard. Additional 1000 ppm standards are available by boxes of 12. All reagents are premeasured and sealed in glass ampoules for quality control assurance. In addition to the reagents, each box provides 10 disposable aluminum scoops for transferring soil from your collection vessel to the soil tube without worrying about cross contamination. The reagent boxes are designed to fit into the space provided in the carrying case for convenient replenishment. The test process involves just a few steps; weigh your sample, add the extract solvent and shake; pour the solution into a filter and dispense into a developer vial. Wait 10 minutes, insert the developer vial into the PetroFLAG instrument and press the "read" button. When analysis is complete, results are displayed on the LCD screen in ppm TPH.

Using a 10 gram soil sample with the standard reagent system provides results from 15 (MDL) to 2000 ppm (analyte dependent). By reducing the sample size, and applying a multiplier, results are possible up to 20,000 ppm (2%). For samples above 2000 ppm, the High Range Dilution system should be considered. With the High Range Dilution reagents, it is possible to achieve results as high as 20% by reducing the sample size and applying a multiplier.

Analytes	Petroleum Hydrocarbons
Matrix	Soil
Detection Method	Turbidimetric Development
Action Levels	10 gm sample: ~15 to 2000 ppm (analyte dependent)
MDL	15 ppm
MQL	45 ppm
Interferences	Natural Hydrocarbons
Overall Accuracy	10% +/-MDL
Analysis Time	Throughput 1-10 samples in 15 minutes

PetroFLAG Reagents
Box 10 tests / Case 40 tests
PetroFLAG Calibration Standards
(1000 ppm standard only)
Box 12 standards / Case 48

Catalog#

PF-SRP

PF-CAL



WARNING: Reproductive harm.
For more information visit www.P65Warnings.ca.gov

PetroFLAG® High Range Dilution Vials



The **High Range Dilution reagents** are used for more heavily contaminated sites where quantification above 2000 ppm is needed. This is an added dilution step used with the regular reagent system. A 10 gram soil sample is extracted with the High Range Dilution reagent. A 1 mL aliquot of the solution is then dispensed into a clean tube for processing with the regular PetroFLAG reagent system. Using the High Range Option with a 10 gram sample produces results up to 2% (20,000 ppm). (Results displayed on the PetroFLAG meter must be multiplied by 10.) For sites with even higher concentrations, reducing the sample size, and applying the appropriate multiplier can produce results as high as 20% (200,000 ppm).

The High Range Dilution reagents are sold by packs of 10 and are an added dilution step used in conjunction with the standard reagent system. A 1 ml pipettor, not included with the pack, is needed and is available for purchase separately.

Analytes	Petroleum Hydrocarbons
Matrix	Soil
Detection Method	Turbidimetric Development
Action Levels	10 gm sample: 150 ppm to 20,000 ppm
MDL	150 ppm
MQL	450 ppm
Interferences	Natural Hydrocarbons
Overall Accuracy	10% +/-MDL
Analysis Time	Throughput 1-10 samples in 15 minutes

*PetroFLAG High Range Reagents 10 Tests	Catalog# PF-HRD
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*For use with regular reagents



WARNING: Reproductive harm.
For more information visit www.P65Warnings.ca.gov

L2000®DXT ANALYZER PCBs & Chlorinated Organics in Soil



U.S. EPA SW-846 Method 9078 for Soil

The **L2000DXT** system is designed for use in the field or in the lab. It can quantify all types of chlorinated hydrocarbons; PCBs, chlorinated solvents, and chlorinated pesticides/herbicides in soil. The electrochemical test method measures the total organic chlorine content of a soil sample and equates that to an equivalent concentration of the target or expected analyte. Conversion programs are available for all major Aroclors and most common chlorinated solvents and pesticides. Custom conversion programs can be built for less common analytes not included on the L2000DXT menu (instructions are included in the user manual).

The L2000DXT instrument has a 7" backlit LCD touch screen with easy to follow prompts. The unit weighs less than 2 lbs., and has a small footprint, 8.5" x 5.5" x 2", making it convenient for in-field use where work space may be limited. It is powered by 1.2V Ni-Mh rechargeable batteries, and comes with a charger available for 115V or 220V power. The test takes 10 minutes and results are displayed on the L2000DXT screen and saved to the internal memory. Data can also be saved to a flash drive for later uploading to an Excel file for fast, easy reporting.

The complete L2000DXT system includes the analyzer, carrying case, electrode, 5 mL pipettor, electronic balance and timer, vial rack and one pack of 20 soil

Analytes	PCB, Chlorinated Organics
Matrix	Soil
Detection Method	Electrochemical
Action Levels	Soil: 3 to 2000 ppm
Analysis Time	10 minutes

L2000 PCB/Chloride Analyzer System with Option 2: 20 Soil Reagents	Catalog# LP-200-02
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WARNING: Cancer.
For more information visit www.P65Warnings.ca.gov

L2000® Soil Reagents



U.S. EPA SW-846 Method 9078 for Soil

Soils contaminated with chlorinated compounds such as PCB, chlorinated solvents, pesticides, and herbicides, can be screened on-site in just 10 minutes, allowing for faster decision making and reducing reliance on the lab.

Collected soil samples are extracted and reacted with a sodium reagent that strips the covalently bonded chlorine from the analyte, converting it to inorganic chloride. The resulting chloride is then detected and quantified with a chloride ion specific electrode. The chloride reading is mathematically converted by the L2000DXT analyzer to the equivalent concentration of the target analyte based on the percent chlorine associated with the analyte. Note: Inorganic chloride, (e.g. road salt), will not interfere with the test. Conversion programs are available for all major Aroclors and most common chlorinated solvents and pesticides. Custom conversion programs can be built for less common analytes not included on the L2000DXT menu. (Instructions are included in the user's manual).

Note: Soils such as wet clay, can pose an extraction problem. For information on dealing with difficult to solvate soils, please refer to the L2000 Two-Step Reagent on page 4.

Analytes	PCB, Chlorinated Organics
Matrix	Soil
Detection Method	Electrochemical
Action Levels	Soil: 3 to 2000 ppm
MDL	3 ppm
MQL	9 ppm
Interferences	Non-analyte organic chlorine
Overall Accuracy	10% +/- MDL
Analysis Time	10 minutes

L2000 Soil Reagents	Catalog#
20 Pack Soil Reagents	LP-SRK
100 Bulk Pack Soil Reagents	LP-SRK-BP

L2000 2-Step Soil Reagents	LP-SR2
20 Pack Soil Reagents	LP-SR2
200 Bulk Pack Soil Reagents	LP-SR2-BP



WARNING: Cancer.
For more information visit www.P65Warnings.ca.gov

HYDROSCOUT® for Soil

Quantitative Test for Water in Soil



The Hydroscout Analyzer System is a convenient field portable method for quantifying water content of soil samples in just a few easy steps. Instead of a 48 hr. wait for the standard oven dry laboratory methods, results are available in less than 10 minutes. The information can be used to guide efficient irrigation management for any crop, allowable soil moisture depletion percentage, or for engineering studies for soil compaction. Hydroscout results can also be used to compensate for the amount of water in analytical samples when the analysis is based on dry weight.

Hydroscout can accurately quantify water content in all types of soil from sand to sea sediment. Results are displayed in percent on an LCD screen. The complete system including the hand-held Hydroscout Analyzer, electronic balance, and one box of 40 tests, are conveniently packaged in a tackle box sized carrying case.

Analytes	Water
Matrix	Soil
Detection Method	Quantitative Calcium Hydride Reaction
Action Level	0.25% (w/w) to 50% (w/w)
MDL	0.25% (w/w)
MQL	0.75% (w/w)
Analysis Time	10 minutes

	Catalog#
Hydroscout for Soil Analyzer System	HS-MTR-03
With one box of 40 reagents	
Hydroscout Soil Reagents	HS-SEV
Box of 40	

Condition Monitoring of Industrial Oils



Total Acid Number • Total Base Number • Total Water Content

Preventive maintenance of engines, turbines, pumps, and hydraulic equipment is much easier to talk about than to implement. Analysis of lubricating fluids historically involves difficult testing that must be performed in a laboratory at considerable cost. Dexsil's field tests provide cost efficient, accurate results in minutes allowing for more frequent testing, and better tracking of the state of valuable lubricating oils.

Dexsil tests are designed for easy use on-site allowing technical or non-technical personnel the ability to achieve accurate reliable data within 5 minutes. **TitraLube® TAN** determines the oxidation state of lubricating oil providing an acid number value from 0.18 to 2 TAN units. **TitraLube® TBN** measures the remaining reserve base in oil from heavy equipment within a range of 0.6 to 20 TBN units. The **Hydroscout® Analyzer System** provides fast, accurate quantification of water content in lubricating oils from 50 - 10,000 ug/mL. Being vigilant in monitoring the condition of your lubricating oils can save thousands of dollars in equipment repairs and replacements, as well as equipment down time.

Quantifying Water Content of Paints & Coatings

The **Hydroscout® Analyzer System** is designed to quickly and easily determine total water content of paints and coatings in less than 5 minutes. The calcium hydride method is simple use with just 3 steps and involves no messy clean-up. It provides results from 2%-85% and can be used for a wide variety of matrices including latex, oil, and epoxy based paints and coatings.

TITRA-LUBE® TBN

Quantitatively Determines Total Base Number In Oil, On-Site



ASTM Method #D-5984-96

Diesel engine oils can be easily tested for Total Base Number (TBN) on-site or in the laboratory by using Titra-Lube TBN. TBN is the measure of reserve alkalinity (base) added to lubricating oils to protect the engine from the corrosive effects of acids formed during the combustion of fuels containing sulfur. Titra-Lube TBN can be used in the field or in a laboratory to accurately determine the oil's TBN level in less than 5 minutes. The test provides a colorimetric determination of TBN between 0 and 20 mg KOH per gram of sample. Oil color does not interfere with test results because the colorimetric determination is carried out in the aqueous phase. All premeasured reagents are non-hazardous, sealed in glass ampules and contain no F series solvents. Each kit contains everything needed to do the analysis.

Analytes	Total Base Number
Matrix	Lubricating Oils, Industrial Oils
Detection Method	Quantitative colorimetric titration
Action Levels	0- 20 TBN Units (mg KOH/gm sample)
MDL	0.6 TBN Units
MQL	1.8 TBN Units
Overall Accuracy	10% +/- MDL
Analysis Time	5 minutes

Titra-Lube TBN
(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.

Catalog #
TI-LUB

Titra-Lube TBN vs. ASTM D-2896 and D-4739

Sample	OIL TYPE	D-4739	D-2896	Titra-LubeTBN
A	NEW	1.31	0.90	0.85
B	NEW	7.05	7.87	7.53
C	NEW	12.45	14.78	13.62
D	NEW	11.2	12.44	11.58
E	USED	3.79	8.79	5.42
F	USED	9.61	13.55	11.36
G	USED	4.64	6.37	5.26
H	USED	13.05	16.76	15.5
I	USED	4.21	8.22	6.0
J	USED	4.03	8.48	5.7
K	USED	2.54	6.87	4.9
L	USED	2.54	6.89	4.3
M	USED	5.56	6.89	4.3
N	USED	7.25	11.12	9.5
O	USED	6.89	10.70	8.5

Table 2
Comparison of ASTM method C2896 and Titra-Lube on new lubricating oil samples.

Sample ID.	ASTM Method C2896	Titra-Lube TBN
Amalie	12.09	12.6
Quaker State (SAE 30W)	8.72	8.7
Quaker State HD (20W-20)	8.08	8.2
Castrol GTX(10W-40)	7.84	7.2
Castrol Motorcycle	6.43	5.8
Kendall Super D III	10.96	10.4
Penzoil Multi High Viscosity	9.08	8.8
Amoco LDO All Seasons (20W-50)	8.95	8.5
Mobil 1 (15W-50)	7.05	7.4

Table 2
Comparison of ASTM method D2896 and Titra-Lube TBN used diesel lubricating oil samples.

Sample ID.	ASTM Method C2896	Titra-Lube TBN
MO-1	8.17	1.2
DDO-1	6.93	6.6
TMO-LC1	6.48	6.2
JTF-KSDIII-1	7.24	6.5
EBU-1	5.45	5.9
CP-EE1	9.29	9.0
CDT-4309	8.37	7.5
CDT-9250	16.10	16.4
8RB357-250	13.40	12.8

- All reagents are premeasured and sealed in glass ampules
- Results are consistent and accurate
- All reagents are safe, no chlorinated solvents or chlorobenzenes
- Easy disposal in normal laboratory waste
- Results in less than 5 minutes
- Range: 0-20 TBN (mgKOH/gram of sample)
- Method Detection Limit (MDL): 0.6 mg KOH/gram of sample
- Minimum Quantitative Level (MQL): 1.8 mg KOH/gram of sample
- Test works equally well on new oils and dirty contaminated oils
- More efficient and economical than preparing standard laboratory reagents

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 ampoules 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

Titra-Lube 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.

Catalog #
TI-TAN

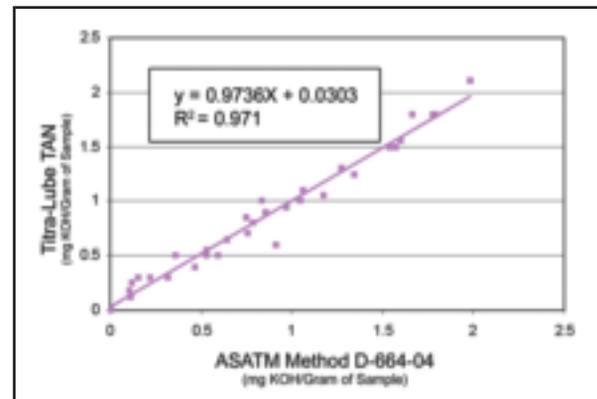
Titra-Lube TAN vs. ASTM Method D-664

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



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.

HYDROSCOUT®

Quantify Water Content of Lubricating Oils



Moisture in oil is an important parameter that must be addressed when considering contaminants in lubricating and hydraulic oils. Analyses performed in the laboratory are time consuming and costly. Turnaround time for most water analyses is 1 to 2 weeks from a laboratory. Hydroscout is an on-site test that quantifies water in industrial oils quickly and easily. The Hydroscout method incorporates the standard reaction of water with calcium hydride to produce one mole of hydrogen for every mole of water. Hydroscout results are reported in ug/mL. To convert to parts per million, simply divide your results by the specific gravity of the oil sample.

Hydroscout Meter

The hand-held HydroSCOUT meter is menu driven for ease of use. The unit auto-calibrates and performs quality control checks to minimize false negatives and ensure accuracy. Using a 5 mL oil sample, results in the ppm range are possible from 50 ppm (MDL) to 10,000 ppm.

PPM Range Reagents

Hydroscout reagents are premeasured and sealed in glass ampoules for safe, accurate, consistent results. Reagents are available by boxes of 40 tests.

Analytes	Water
Matrix	Lubricating/Industrial Oils, BioDiesel
Detection Method	Calcium Hydride Reaction
Action Level	50 to 10,000 ug/mL
MDL	50 ug/mL
MQL	150 ug/mL
Interference	Ethylene Glycol / Acids
Overall Accuracy	10% +/-MDL
Analysis Time	10 minutes

	Catalog#
Hydroscout ppm Analyzer w/Carrying Case Includes one box of 40 test reagents	HS-MTR-02
Hydroscout Reagents – Box of 40 tests	HS-LRP

Measure Water Content in Paints & Coatings



High Range
15% - 100%

Low Range
0 – 15%



ASTM Method D-7358-07

Determining water content of paints and coatings has never been easier. The Hydroscout Analyzer System is a calcium hydride method that compares favorably with the laboratory standard, Karl Fischer, and has fewer interferences. There are two test options: Low range from 0-15% or High Range from 15-100% for testing a wide range of paints and coatings including latex, oil base, epoxy paint, phenolic coatings, and acrylic stains and sealers. The system is very simple to use with results in less than 5 minutes.

The hand-held Hydroscout meter continuously performs internal quality control checks to ensure accuracy and auto-calibrates so there is no need for calibration standards.

The complete Hydroscout systems include the Hydroscout analyzer, carrying case, and one box of 40 reagents. When ordering, please specify high or low range reagents. The high range option requires additional dilution vials.

Analytes	Water
Matrix	Paints & Coatings
Detection Method	Quantitative Calcium Hydride Reaction
Analysis Time	Less than 5 minutes
Action Level	Low Range High Range
ASTM Method D-7358-07	0 to 15% 15 to 100%
	2% to 85%

	Catalog#
Hydroscout for Paint System	HS-MTR-04
Hydroscout for Paint System Complete system with carrying case & box of 40 reagents	HS-MTR-05
Hydroscout Reagents – Box of 40 Low Range Option	HS-LPT
High Range Option	HS-HPT

On-Site Test Kits for Alternative Fuels



- **Percent B100 in Diesel Blends**
- **Free Fatty Acids in Biodiesel**
- **Total Water in Biodiesel**
- **Percent Alcohol in Gasoline**

Alternative fuels are derived from renewable sources such as vegetable and animal oils; ethanol from sugar or cellulose; solar radiation from the sun, and from other sources of energy not derived from fossil fuels. Biodiesel and ethanol are two renewable energy sources being introduced into the fuel marketplace worldwide. These new energy sources are added to refined fossil fuels such as diesel fuel, home heating oil, and gasoline. To ensure that these blended fuels meet alternative fuel standards set by the industry, analytical testing should be performed before these fuels reach the consumer. Dexsil Corporation has developed on-site test kits to meet some of these needs.

Percent B100 in Diesel Blends

FAME CHECK[®] is our newest product, and it is designed to quantify percent B100 in diesel fuel blends. The test kits are individually packaged for ease-of-use, and are available in 3 test range options: 0-10%, 0-20%, and 0-60%.

Total Water in Biodiesel

The HydroSCOUT[®] Analyzer System is a quick, easy way to quantify the water content in biodiesel in a range from 50 ppm to 10,000 ppm (1%). Hydroscout is a calcium hydride test method that is simple to use with no messy clean-up. The hand-held Hydroscout meter is menu driven and displays results on an LCD screen.

Biodiesel Acid Number

Titra-Lube[®] TAN test kits measure free fatty acid content of biodiesel from 0 - 2 KOH/gram of sample. Each individually packaged kit includes everything needed to complete one test in less than 5 minutes.

Percent Alcohol in Gasoline

Quant-N-Ol[®] is a quick, simple test to accurately determine the alcohol content of gasoline from 0 - 90% in less than 2 minutes.

FAME CHECK®

Test for Quantifying Biodiesel Fuel Blends



FAME CHECK is designed to quantify the amount of biodiesel blended with diesel fuel. It works on all types of B100 regardless of source. FAME CHECK test kits are available at 3 test ranges; 10%, 20%, or up to 60%. Reagents are premeasured and sealed in glass ampules for ease of use and consistent results.

Analytes	Biodiesel	
Matrix	Diesel Fuel Blends	
Detection Method	Quantitative Acid Titration	
Action Levels	MDL MQL	
0-10%	0.36%	1.08%
0-20%	0.72%	2.16%
0-60%	2.38%	7.13%
Overall Accuracy	10% +/- MDL	
Analysis Time	15 minutes	

FAME CHECK (US Patent 8,709,815) Catalog # FM-CHK
 Packaged 20 kits to a shelf pack, 80 kits per case
 Minimum order 10 kits
 Orders greater than 10 kits must be in multiples of 20.

TITRA-LUBE® TAN

Test For Acid Number In Biodiesel



Titra-Lube TAN is designed to determine the amount of free fatty acids in biodiesel. The test covers the range of 0 - 2 TAN units (mg KOH/gram of oil). Titra-Lube TAN contains no F series solvents. Reagents are non-hazardous, premeasured and sealed in glass ampules for consistent, accurate results.

Analytes	Biodiesel	
Matrix	Diesel Fuel Blends	
Detection Method	Quantitative Colorimetric Titration	
Action Levels	0-2 TAN Units (mg KOH/gm oil)	
MDL	0.18 TAN Units	
MQL	0.54 TAN Units	
Overall Accuracy	10% +/- MDL	
Analysis Time	5 minutes	

Titra-Lube TAN Catalog # TI-TAN
 Packaged 20 kits to a shelf pack, 80 kits per case

HYDROSCOUT® ANALYZER SYSTEM

Quantitative Test for Water in Biodiesel – ppm Range



The Hydroscout Analyzer System quantifies water in biodiesel quickly and easily. The Hydroscout method incorporates the standard reaction of water with calcium hydride to produce one mole of hydrogen for every mole of water. The hand-held Hydroscout meter measures the hydrogen pressure and mathematically converts it to ppm of water in the sample. The easy to use meter auto calibrates and performs quality control checks to minimize false negative reporting and ensure accuracy.

Hydroscout reagents are premeasured and sealed in glass ampules for safe use and consistent results. Analysis takes less than 5 minutes.

Analytes	Water	
Matrix	Diesel Fuel Blends	
Detection Method	Calcium Hydride Reaction	
Action Levels	50 - 10,000 ug/mL	
MDL	50 ug/mL	
MQL	150 ug/mL	
Overall Accuracy	10% +/- MDL	
Analysis Time	Less than 5 minutes	

Hydroscout Analyzer w/Carrying Case Catalog # HS-MTR-02
 (includes 40 test reagents)
 Hydroscout ppm Reagents HS-LRP

QUANT-N-OL®

Determine Alcohol Content of Gasoline

Quant-N-OL allows regulators and gasoline distributors to test for the presence and percentage of alcohol in gasoline, on-site in less than 2 minutes. Quant-N-OL provides quantitative results between 0-90% quickly and easily using safe, non-toxic reagents.

Analytes	Alcohol (Ethanol)	
Matrix	Gasoline	
Detection Method	Miscibility	
Action Levels	0 - 90%	
Overall Accuracy	10% +/- MDL	
Analysis Time	Less than 2 minutes	



Quant-N-OL Catalog # QU-NOL
 Packaged 20 tests per box

Laboratory Services

Dexsil's full service analytical laboratory provides environmental analysis on a timely basis at reasonable cost. Standard turnaround time for most analyses is five working days. One day turnaround is also available. Dexsil's lineup of analytical equipment includes:

- Gas Chromatographs with ECD, FID
- Ion Chromatographs
- ICP Spectrophotometers
- HPLC
- Flash Point Apparatus
- Numerous Wet Chemistry Analyzers
- Bomb Colorimeter

PCB, Metals, and Other Laboratory Services

Dexsil supplies sample vials and postage paid mailers to all customers sending in oil samples upon request. Clearly organized Chain of Custody forms are also available for all samples shipped to Dexsil. These forms help maintain a defensible chain of custody from the time the samples are taken until sample results are reported.

Results for each sample are reported on individual certificates. The original certificates are mailed, but can also be forwarded by fax or email.

If you are in the area, we invite you to see our laboratory in operation. Contact the analytical lab for pricing and additional information.



Used Oil Analysis

<u>Analyte</u>	<u>Method</u>
Total Halogens	EPA 5050/9056
PCBs	EPA 600/4-81-045
Metals (As, Cd, Cr, Pb)	EPA 3040A/6010B
Sulfur	EPA 5050/9056
Water	ASTM D 6304-98
Flash Point	ASTM D 3828A
Specific Gravity	ASTM D 1298
BTU Content	ASTM D 2015
ASH	ASTM D 482-80

PCB Analysis

<u>Matrix</u>	<u>Method</u>
Oil	EPA 600/4-81-045
Soil	EPA 8082
Water	EPA 608
Surface Wipes	EPA 8082

Lubricating Oil Analysis

	<u>Method</u>
Base Number	ASTM D 2896
Acid Number	ASTM D 664
Water	ASTM D 6304-98

Product Name Index

Product	Matrix	Target Analyte	Page
Clor-D-Tect® 1000	Used Oil	Chlorine (Halogens)	8
Clor-D-Tect® Q4000	Used Oil	Chlorine (Halogens)	8
Clor-D-Tect® Q4000 High Range	Used Oil	Chlorine (Halogens)	10
Clor-N-Oil®	Dielectric Fluid	PCB	2
Clor-N-Soil®	Soil	PCB	2
FAME Check®	Diesel Fuel	Biodiesel	20
HydroCLOR® Q	Used Oil	Organic Chlorine	9
Hydroscout® Analyzer System	Used Oil % Range	Water	9
	Industrial Oils—ppm Range	Water	18
	Soil	Water	14
	Biodiesel	Water	20
L2000®DXT Analyzer System	Dielectric Fluid	PCB	3
	Soil	PCB/Chlorinated Organics	3 & 13
	Groundwater	PCB/Chlorinated Organics	5
	Surface Wipes	PCB	5
PetroFLAG® Analyzer Systems	Soil	TPH	12
	Soil – High Range	TPH	13
Quant-N-Oil®	Gasoline	Ethanol	20
Titra-Clor® C & P	Used Oil	Chlorine (Halogens)	10
Titra-Lube® TAN	Lubricating Oils	Acid Number	17
	Biodiesel	Free Fatty Acids	20
Titra-Lube® TBN	Lubricating Oils	Base Number	16

DEXSIL®

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Email: info@dexsil.com • Website: www.dexsil.com

24 Hour Emergency Number:

1-800-424-9300 USA • 1-703-527-3887 (International)

Terms:

Net 30 Days with approved credit

F.O.B. Hamden Connecticut

Orders shipped by check in advance, C.O.D., or prepaid by Visa, Mastercard, Discover, AMEX

Most orders can ship same day when received before 2:00 pm Eastern Time. All orders are shipped by FedEx/UPS. Orders may be placed at our website or by mail, phone, email, or fax.

TERMS & CONDITIONS

Same Day Shipping

Dexsil Corp. provides same day shipping, within the continental USA, for in-stock items ordered before 2:00 PM ET. This does not apply to items not in stock, back orders, replacement orders, new accounts (first orders) or orders placed on credit hold. We are not responsible for delays due to computer interruptions or Acts of God.

Normal Delivery

Most products are shipped within 5-10 working days. All orders are shipped F.O.B. Dexsil Corp., Hamden, CT via FedEx or UPS Ground within the continental United States. Contact our sales office for information regarding expedited service, shipments to Alaska or Hawaii, or international shipping.

Returns & Replacements

Call us during normal business hours to advise us of your return. Please have your invoice number, order number and order date available when you call. We will provide you with a Return Authorization Number which is necessary for all returns. Include a copy of our packing slip or invoice within your return package along with a letter describing the reason for the return. Mark the outside of the package with the return authorization number. Shipping charges must be pre-paid since we cannot handle C.O.D. charges for return packages.

Limitations Upon Guarantee

Notification of returns must be within 15 days of receipt to avoid a 20% restocking fee. This fee is waived if Dexsil shipped defective, damaged or incorrect orders. The item must be in its original manufacturer's packaging. This packaging, including any inner packaging, cannot be defaced or damaged. Dexsil Corp. reserves the right at its discretion to refuse the return or impose a restocking charge for any item that falls outside the limits of the guarantee.

Shortages, Damages and Claims

We take great care in filling, checking and packing your order and make every effort to ensure your full satisfaction. Upon receiving your order, please check all merchandise. If there are any damages or shortages, immediately call our sales department in order to file a claim with the carrier and have us reship the merchandise. To expedite the situation, also directly notify the carrier (UPS or similar carrier) of the situation. Keep damaged goods, containers and packaging in their shipped condition for inspection by the carrier until you are further advised.

If shipped via motor freight carrier, have the delivering carriers agent note the damage on all receipts and freight bills. If you accept a damaged or short shipment from the delivering carrier's agent without their proper notation, you do so at your own risk.

Payment Options

Dexsil Corp. accepts approved net 30 day open account orders as well as payment by VISA, MasterCard, check or C.O.D. All payments are to be paid in US funds and require a \$50 minimum purchase. C.O.D. orders may require bank information.

Opening an Account is Easy

We request that you furnish your Federal ID number, three trade references, and one bank reference including your account number, and the telephone number and contact person (officer) of your bank. If you need immediate delivery before your open account can be established, please utilize one of our other payment options for your order.

Pricing & Quotes

All prices are net in US Dollars and are effective at the time of printing. Although we strive to keep prices effective for the life of the catalog, due to unexpected manufacturer price changes or changes in commodity markets, pricing and quotes are subject to change without notice. Under normal conditions, quotations are valid for 30 days unless otherwise specified or if based on dated sales prices.

Distributor Discount /Volume Discounts

Dexsil Corp. offers discounts to bonafide distributors. In addition, special discounts maybe available on quantities larger than our published price list. Due to unexpected manufacturing changes, changes in commodity markets and promotional pricing changes, discounts may have to be adjusted and are, therefore, subject to change without notice.

Special Orders

We can have products custom manufactured or custom designed to meet your specific needs. Cancellation or returns of special orders require special authorization and maybe subject to cancellation or restocking charges that are imposed by the manufacturer.

OTHER TERMS & CONDITIONS

OSHA Hazardous Substance Product Information

Safety Data Sheets (SDS) are available upon request for all materials that require a SDS sheet. Products considered hazardous for shipping may require special package handling or additional charges imposed by the shipping carriers. For SDS sheets or to get specific details on shipping restrictions and charges, please call our sales department at 1-203-288-3509.

Local Safety Standards and Regulations

Products sold by Dexsil Corp. are designed to meet stated USA safety standards and regulations. Since local safety standards, codes and regulations vary significantly, Dexsil Corp. cannot guarantee that our products will meet all applicable requirements in each locality. Therefore, the purchaser assumes full responsibility for compliance with such safe standards and regulations in those localities where the product will be shipped, sold and Dexsil Corp. is not responsible for how the products are used or disposed of.

All information provided by any Dexsil Corp. employee or vendor representative or outside salesperson at Dexsil Corp. is subject to our limited warranty.

Limited Warranty

Dexsil Corp. warrants that for a period of 180 days from the date of shipping, its electronic devices and to the end of the expiration date of its chemical test kits, merchandise shall be free from defects in materials and workmanship under normal use provided such merchandise is correctly stored and maintained. This warranty of quality shall not apply to products that have been subject to misuse, abuse, neglect or improper storage, handling or maintenance.

BUYERS EXCLUSIVE REMEDY FOR BREACH OF THIS WARRANTY SHALL BE THE REPLACEMENT BY DEXSIL CORP. OF ANY DEFECTIVE MERCHANDISE RETURNED TO DEXSIL CORP. IN NO EVENT SHALL DEXSIL CORP. BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOSS OF PROFITS OR FOR ANY OTHER DAMAGES NOT WITHSTANDING THAT DEXSIL CORP. MAY HAVE BEEN ADVISED THAT SUCH DAMAGE MAY BE LIKELY TO OCCUR.

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Terms

These terms and conditions shall constitute the entire agreement between Dexsil Corp. and the purchaser, and shall be governed by and construed according to the laws of the State of Connecticut and the United States of America.

Due to continuing improvements and changes in our product lines and errors that may occur in the production of this catalog, some items may differ from the specifications and photographs in the catalog. Specifications are therefore subject to change without notice.

Due to manufacturer price changes, changes in our published price schedule are subject to change without notice and we reserve the right to change Quoted prices and impose purchase restrictions at any time.

Dexsil reserves the right to refuse any order.

Dexsil Corp. is not responsible for any photographic or "typographical errors that occur in the production of the catalog."



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