

Estimation of Deleterious Particles in Lubricating Grease

test method

Detects and estimates deleterious particle contamination in lubricating greases and other semi-solids and heavy liquids. Grease fillers can be tested for abrasive contaminants by first mixing them into petrolatum or grease known to be free of deleterious particles.

deleterious particles determination apparatus

• Conforms to ASTM D1404 specifications

Complete apparatus per Figure 1 and 2 of ASTM D1404. Rotates plastic plate 30° against stationary plate while applying 200psi pressure. Includes body, test plate holders, loading screw, calibrated spring with scale for applying test load and removable cap assembly with milled slot and handle for rotating test plates. Constructed of stainless steel. Order plastic test plates separately.

ordering information

catalog no.	description	qty
K19300	Deleterious Particles Determination Apparatus	1
	accessories	
K19310	Plastic Test Plate. For use in Model K19300 Highly polished. Two (2) required for each test	20



K19300 Deleterious Particles
Determination Apparatus

Oil and Grease in Water and Wastewater by Infrared (IR)

test method

For the determination of oil and grease and nonpolar material in water and wastewater by an infrared (IR) determination of dimer/trimer of chlorotrifluoroethylene (S-316) extractable substances from an acidified sample. Included in this estimation of oil and grease are any other compounds soluble in the solvent.

infrared analyzer

- Analyze produced water on offshore oil rigs
- Monitor effluents from refineries or wastewater treatment and industrial plants
- Measurement of fats, oil and grease (FOG) discharges
- Determine efficiency of oil/water separation systems
- Conduct soil studies at remediation sites or around underground storage tanks
- Measurement of residual oil on pre-cleaned metal components
- Determine purity level of reclaimed solvents or virtually any on-site testing of water and soil requiring measurement of TOG and/or TPH concentration levels

Recommended for measuring total oil and grease (TOG) and total petroleum hydrocarbon (TPH) levels in water and soils, as well as fats, oil and grease (FOG) in water using the traditional EPA methods 413.2 and 418.1 with Freon-113 or ASTM Method D7066-04 with S-316, also compatible with other infrared transparent solvents such as hydrocarbon-free spectroscopic grade perchloroethylene, AK-225 or other infrared transparent solvent as the extracting solvent. The IR analyzer is ideal for on-site analysis to meet new European regulations. Since there is no evaporation step in the analysis the light end volatile components are retained for measurement.

Dimensions wxdxh,in.(cm)	Included Accessories
6.5 x 6.5 x 5 (16.5x16.5x12.7)	Power Supply
Net Weight: 4.5 lb (2.0 kg)	Instruction Manual

specifications

Conforms to the specifications of:

ASTM D7066; EPA Methods 413.2 and 418.1

Type: Fixed filter infrared filterometer

Display: 4 digit, 7-segment red LED, 5/8 in. character height

Measurement Range:

For Water: 2 – 1000 ppm (using a 10:1 extraction ratio)

For Soil: 3 – 5000 ppm (using a 1:2 extraction ratio)

Usable Solvents for Extraction Process: Freon, perchloroethylene, S-316, AK-225 or other infrared transparent solvent

Analysis Time: 10-15 minutes, including extraction process

Operating Temperature Range: 40°F (4°C) to 110°F (45°C)

User Selected Calibration: Zero balance adjustment.

Up to 20 point curve fitting calibration

Repeatability: ± 1ppm

Electrical Requirements

Voltage – 12VDC, +2% max.

Power – 7.5 watts max., 5 watts typical

Input – Switchcraft 760 plug or equivalent, center positive

Suggested Power Sources:

Wall Supply; AC/DC converter type (supplied as standard)

12 volt auto battery adapter connector (optional)

Portable 12 volt battery pack (optional)

ordering information

catalog no.	description
K25552	Infrared Analyzer, 12 VDC
	accessories
K25551-1	10mm Quartz Cuvette Cells, Set of 4
K25551-2	Car Adapter Cable
K25551-3	IR Sample Plate, pk 5
K25501	External 12V Battery Pack
K25502	Carrying Case
K25507	Dust Cover
K25509	Serial Printer



85 Corporate Drive, Holtsville, New York 11742
1-800-878-9070 (in u.s. only) TEL: +1 631 589 3800 FAX: +1 631 589 3815
Email: sales@koehlerinstrument.com www.koehlerinstrument.com

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ask@labequip.com