

# Biotage<sup>®</sup> Horizon 3100

Oil & Grease Extractor



## Oil & Grease Around the World

Oil and grease (n-hexane extractable material) is a general indicator of the amount of hydrocarbons in a water supply. It is used around the world to indicate pollution and to help ensure reliable waste treatment plant operation.

In the past this measurement was often made by extracting the water with a chlorofluorocarbon solvent and infrared used for the measurement step. With concern about the ozone layer and important toxicity concerns, these solvents have been outlawed in many countries and n-hexane is now the extraction solvent of choice. A simple gravimetric measurement is used for the analytical step.

### Automated SPE for Efficiency

Biotage® Horizon 3100 automates the entire extraction process, fully compliant with US EPA Method 1664A/B, ISO 11349 and Standard Methods 5520G. Operation can be summarized as follows:

1. The disk is conditioned to accept the sample
2. The system uses the original sample bottle to deliver the sample
3. The specialized solid phase extraction disk retains the oil and grease from the sample and water is sent to waste
4. The sample bottle is automatically rinsed
5. Hexane elutes the oil and grease from the solid phase extraction disk into a collection vessel.
6. The extract is then dried using either sodium sulfate or a DryDisk®-R Separation Membrane.
7. The dry hexane extract is delivered to the receiving vessel allowing easy transfer to an aluminum pan and Speed-Vap® for evaporation



## Instrument Configuration

- » Three independent stations for the best productivity
- » Ergonomic design for comfortable operation
- » Controlled airflow for increased safety operating outside a hood
- » Rugged construction with plastic front for corrosion resistance
- » Spill containment platform and drip tray
- » Can be operated in a hood or on a bench



## Touch-Screen Controller

- » Color and intuitive icons make learning easy and quick
- » Resident methods help speed development
- » Rugged controller for easy handling
- » Start up and clean methods for easy maintenance



## Pacific® Solid Phase Extraction Disks

- » Reliable, excellent recoveries
- » Available in two sizes for clean or more particulated samples
- » Can be used with prefilters for especially difficult samples
- » Certified to operate with automation



## Fully Compliant with Regulatory Methods

- » Uses the original sample bottle to dispense the sample and automatically rinses it, too
- » Methanol and hexane carefully separated for the best compliance

## Reliable for Processing any Sample

- » Variety of prefilters for dirty samples
- » Overflow sensors to pause operation before a sample is lost for better unattended operation

## Safety Considerations

- » CE marked
- » NRTL tested
- » Uses the safe Solvent Delivery System
- » Less operator exposure to solvent for increased safety

## Green Features

- » Less solvent used
- » Less solvent waste
- » Biotage® Solvent Recovery OG option to reclaim hexane from the Speed-Vap® evaporation system

### Get Ahead with Biotage® Horizon 3100

#### Business Advantages

- » Three independent stations for the best match with the laboratory workload
- » Safely walk-away for better technician time use
- » Intuitive touch screen controller with pre-programmed methods for rapid start-up with reduced learning curve
- » Uses less solvent and produces less waste
- » All incoming samples can be processed, whether highly particulated or not

#### Analytical Advantages

- » Excellent recoveries with Pacific® Premium disks
- » Better reproducibility between multiple technicians
- » Uses the original sample bottle and also rinses it



# Your Complete Partner for Effective Chemistry

Biotage is a worldwide supplier of instruments and accessories designed to facilitate the work of laboratory and process chemists. With our deep knowledge of the industry, academic contacts and in-house R&D teams, we can deliver the best solutions to your challenges. We take great pride in our flexibility and ability to meet our customer's individual needs. With strong foundations in both analytical, organic and process chemistry, we can offer the widest range of solutions available on the market.

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Literature Number: PPS541.V2

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