

Crumb Infill and Turf Characterization for Trace Elements and Organic Materials

Submitted by
Dr. Paul J. Liroy and Dr. Clifford Weisel
Environmental and Occupational Health Sciences Institute
Robert Wood Johnson Medical School
170 Frelinghuysen Road, Piscataway, NJ 08854

Submitted to
Mr. Steven Rinaldi
NJDEP, Bureau of Recycling and Planning
and
Dr. Alan Stern
NJDEP, Office of Science
Trenton, NJ 08625

Executive Summary

Project Rationale: A study was undertaken to conduct a thorough evaluation for hazardous chemicals within major product lines of crumb infill and associated turf that are available for use on athletic fields and public parks. This included a quantification of the bio-accessibility of hazardous chemicals found in the crumb infill and associated turf product from both newly purchased materials and in-use fields of different ages. The objective was to provide an independent scientific basis to assist communities in their ability to make decisions on the selection of the materials to be used as artificial infill turf fields based on potential exposure to users of the fields to hazardous agent that might be present in the materials.

Methodology: Synthetic lung, sweat and digestive biofluids were analyzed for trace metals, polyaromatic hydrocarbons (PAHs) and scanned for semi-volatile organic compounds. In addition acid extraction for metals and high temperature volatilization for semi-volatile and volatile organic compounds were done to assess total extractable levels of these compounds. The protocols were followed in order to fill a major data gap identified by the 2008 turf/infill workshop, NYC, NY, that bioaccessibility studies were needed for the inhalation, dermal and ingestion routes of entry into the body for both organic and inorganic materials.

Results: Overall the metals, PAHs and semi-volatile compounds found all classes of materials to be at very low concentrations. Thus, for the metals and compounds identified there would be *de minimus* exposures and risk among anyone using fields with the exception of lead in a single new turf material. It is therefore prudent to reemphasize the need to avoid lead-based pigments in these materials as coloring agents. For the compounds that have known hazard the levels in the biofluids were below standards for soil cleanup so no formal risk assessment is currently recommended. In addition, the many organic compounds identified in the biofluids for which there are no hazard data currently available were also at very low concentrations so no further risk assessment is currently recommended unless new hazard information becomes available. In the future, the types of bioaccessibility studies conducted as part of these experiments should be completed for all new turf/infill products.

Purpose:

To complete a thorough evaluation for hazardous chemicals within major product lines of crumb infill and associated turf that are available for use on athletic fields and public parks.

To quantify the bio-accessibility of hazardous chemicals found in the crumb infill and associated turf product.

To complete a comparative risk assessment for chemicals found to be at levels that would be of concern to human health for the infill products and applications of the products on actual fields.

To provide an independent scientific basis for communities to make decisions on the selection of the materials to be used as artificial infill turf fields.

Introduction:

There have been concerns expressed about the “safety” of artificial infill turf that is used extensively, or planned to be used for new field projects throughout NJ. Initial concerns were about turf that had lead chromate used to provide the color for the turf, and in NJ, this issue was addressed by research sponsored by the DEP and by advisories issued from the DHSS. However, the issue that still needed to be addressed, and was the subject of this study is the safety of turf with infill that was initially composed primarily of “crumb rubber”. There have been industry studies that were summarized during the summer of 2008 by Chemrisk and others, but those focused primarily on the composition of the material and the durability of the product with minimal information on potential toxicants. However, there is a need to address the volatile and semi-volatile components of the crumb infill to evaluate if potential exposure to these compound present any risk to individuals using the fields. This is especially true for new products that are coming onto the market.

At a meeting held by the states located around the NJ –NY metropolitan area on August, 13 2008, the issue of crumb rubber and other infill products was discussed in detail. There was consensus that there were many important gaps associated with our current understanding. Among these are whether there are hazardous compounds present in the primary turf/infill products available to communities within each state and what might be the pathways that could lead to potential exposures to those compounds. Some questions were addressed in a field study conducted by the State of Connecticut that examined volatile organic chemical releases from actual fields with known turf/infill products. Another study was conducted by the State of New York to understand the release and field related impacts of turf/infill materials on the surface water, ground water, and the air, and to characterize the field surface temperature. As identified above, the purposes for the Study Conducted by EOHSI, was to fill a complementary data gap that also had been identified as an issue in NJ.

The literature on crumb rubber infill and turf has been growing since 2002. There have been a number of evaluations and many use the same datasets in overviews of available information. Further, many of the actual initial experiments were completed in Europe where the turf material may not be the same as that used in the US., However, recently important studies were

completed in the US since 2002 which can provide insight into the composition and safety of turf material installed in the US (EPA 2009) (Simon 2010) (Lim and Walker 2009). A consistent result was that all studies indicated exposures to VOC's were minimal. A preliminary study conducted in 2007 by the Connecticut Agricultural Experiment Station identified benzothiazole, butylated hydroxyanisole, n-hexadecane, and 4-(tert-octyl) phenol as potential chemicals of concerns. This study, however, was laboratory based and did not include collection and analysis of samples from installed fields. The laboratory study results were substantiated by the field study reported in 2010 (Simcox, Bracker et al. 2010) and were supported in a peer review completed in 2010 (CAS 2010), conducted by the Norwegian Institute for Air Research. The latter evaluated the air quality at three different indoor fields for similar materials." In the Milone and MacBroom Study (Bristol 2008), some samples were analyzed for volatile nitrosamine content and others for benzothiazole and 4-tert-octyl phenol. Each of these chemicals would be expected to be released from the rubber. The Connecticut study also examined benzothiazole. A vertical profile approach looked at exposure conditions for a variety of athletic events and range in children's height. The Connecticut Health risk assessment measured exposures at fields with turf infill materials in four locations in the State. The measurements were taken using a combination of personal monitoring and stationary monitoring. The latter were collected on and off the field. The results were "well within the range of typical ambient air pollution and well below the risk targets for VOC and the SVOC Benzothiazole." The latter had the suggestion of a potential for a slight irritation response for children playing indoors. The Results from the NYS study found similar low concentration results for the air sampling aspects of their field study. In contrast to the Connecticut study, the NYS results were obtained under "worst case" summertime conditions to maximize the potential for high temperatures and significant evaporation of VOC's and SVOCs. Research by NYS examined various semi-volatile and volatile compounds from crumb rubber both in the laboratory and in the field. The potential confounder was the lack of measurements of these compounds as emitted from the turf as well as the rubber in the laboratory tests. The field tests provided an integrated emission across the full material but were not directly comparable to the laboratory tests. The work will also look at the leachability of organics and metals from the crumb rubber. The NYS studies utilized laboratory and field collection protocols for examining storm water and ground water contamination (Lim and Walker 2009), but do not provide information on the bioavailability of the contaminants of these materials to humans since the studies do not include assessment of their release in either lung fluid or total digestive fluids. This gap is addressed in the current EOHSI studies.

In a review by Chem-Risk (ChemRisk 2008) it was stated that "In the Norwegian study, (Norwegian Institute of Public Health and the Radium Hospital (2006)) air samples were collected at three indoor artificial turf fields, two of which (Manglerudden and Valhall) used recycled tire rubber and SBR rubber, respectively, for infill. In Manglerudden, 234 chemical compounds were detected, of which 29 were able to be identified. Total VOC concentration was 716 $\mu\text{g}/\text{m}^3$. During a second sampling period the total VOC were measured at 230 $\mu\text{g}/\text{m}^3$. In Valhall, the mean total VOC concentration was 234 $\mu\text{g}/\text{m}^3$. In estimating risk, VOC concentrations from Valhall were used in order to establish a worst-case scenario, as chemical concentrations at this location were consistently two to three times higher when compared to the other locations. Exposure estimates and risk were

calculated for four exposure scenarios: adults, juniors, older children, and children using the facility for training. Risk from acute exposure was determined to be negligible. However, risk should not be estimated based on total VOCs, but rather, risk should be determined for specified VOCs with toxicity criteria for inhalation. The results do suggest that the levels were in a range of acceptable risk for a single acute exposure. However, it remained to be seen how this translates to other fields among locations both within the US and outside the US, and if the additive risks are still in the acceptable range, or if longer term exposures are of significance to health.

The NYS's research study design included a summary of 11 major studies done on artificial turf. Most were conducted in Europe including 3 by Norwegians. Unfortunately, there was no basic suite of compounds measured in all studies. Thus, our study design provided an attempt to establish the basic suite of toxicants that should be measured in any study. The most comprehensive study for evaluating what may be released from the crumb rubber into the environment is the Norwegian Institute of Public Health and the Radium Hospital study (2006). This was the only one that completed a comprehensive risk assessment and would be appropriate for use in comparative analyses with the results obtained by the proposed research. However, the bioavailability of the agents measured was not considered, even for the most basic components, metals.

For both the crumb rubber, and the turf fibers themselves, a major concern is metals. The City of New York planned a "Field Investigation of Potential Inhalation Exposures Associated with Crumb Rubber Athletic Fields in NYC." These are actual field studies, and would augment the analyses of our study by providing more data for an exposure and risk assessment for synthetic turf/crumb rubber fields. Reports for these studies are not currently available so their current status is unknown. No bioavailability studies were planned by the City of NY.

A study to understand potential children's inhalation exposure to lead from artificial turf fields has been funded by NJDEP by using a robotic system to mimic the movement of toddlers and collecting air samples in the breathing zone of that age group. Results are in preparation.

Two studies have reported data on bioavailability of contaminants from artificial turf, one of which examined only the gastric fluid and a second which was limited in scope and reported as a pilot study in which three fields were sampled (Zhang, Han et al. 2008). Neither study looked at artificial lung fluid or sweat to evaluate bioavailability to inhalation or dermal exposures which are the subject of the current investigation. This information on bioavailability is also lacking in the report completed by Simon (Simon 2010) that sought to provide an overall perspective on the costs and benefits of using artificial turf fields that included the perspective on the playability and cost effectiveness of synthetic turfs in addition to potential health and environmental concerns from the materials used.

A summary of the types of measurements that have been made and what was carried out in this study is given in Table 1. As indicated our EOHSI study provides two new key sets of measurements, the bioavailability of metals and organics in crumb rubber, for which there are very limited data previously reported and the screening of the crumb rubber for metals and

organics which has only previously been done extensively in Europe and should also be done on material produced in the US. The bioavailability will be determined using synthetic biofluids of lung fluid, sweat and gastrointestinal fluid.

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Table 1 Summary of Studies on Crumb Rubber and Artificial Turf By Media Sampled and Analyte Types								
	Crumb Rubber		Leachate		Air		Bioavailability	
	Metals	Organics	Metals	Organics	Particulates	VOCs	Metals	Organics
Norwegian 2005 Field Study			Zn	PAHs, Phthalates Phenols				
Norwegian 2006 Risk Assessment		PCBs PAHs, Phthalates AlkylPhenols used to estimate dermal-oral dose			PCBs PAHs, Phthalates AlkylPhenols	Aromatics Aldehydes Screening for compounds		
Connecticut 2007 Lab study			Zn, Se, Pb, Cd			High temp Scan for volatile cmpds		
EEDEMS 2007 France			Heavy Metals					
Intron 2007	Heavy Metals	PAHs, VOCs, Benzothiazoles Amines						
OEHHA 2007 Review and Plans for CA	Zn, Al, Fe, Mn		Heavy Metals	PAH and some specific cmpds	Particle loading	PAHs	3 samples gastric simulation Heavy metals	3 samples gastric simulation selected organics
NYC Plans	Selected Heavy Metals	Selected Organics	Selected Heavy Metals	Selected Organics	Selected Heavy Metals	Selected VOCs high temperature		
NJ DEP Plans					Lead inhalation for Toddlers			
Zhang, JJ, Han, IK, Zhang, L and Crain, W JESEE 2008							Samples from 3 fields Simulated Digestion Zn, Cr, As, Cd., Pb	Samples from 3 Simulated Digestion fields PAHs
This Project: sampled across both 8 new infill materials, 7 new turf and 7 infill from existing fields	Heavy Metals	Scan for Organics				Limited Study high temperature for comparison to existing data	Simulated, Full Digestion, Sweat, Lung Fluid Heavy Metal	Simulated, Full Digestion, Sweat, Lung Fluid Scan for Organics

Approach:

Given the uncertainties about the presence and/or the bioavailability of any toxicants in the crumb infill and associated turf in products used on athletic fields and play grounds, this study focused on a characterization of the major types of products for organic chemical and elemental components both in the turf and in the infill. It included two components: laboratory analyses and samples collection studies. Each phase was designed to examine both elemental and organic constituents in the crumb turf products. Some turf infill products are available that use crumb rubber, while recently other infill products have been produced which are composed of a variety of materials. The materials selected for use in the present study were selected based upon a meeting among Dr. Lioy, EOHSI, Dr. Mark Maddaloni, US EPA and Mr. John Butz of Landscape Architects I Site Planners, NYC, NY, the latter has been installing artificial Turf fields for a number of years. The goal was to select a cross section of major types of fill and associated turf that are available on the market from a variety of suppliers. The list of the types of materials selected for the EOHSI analyses are shown in Table 2.

Sample	Description
A Cryogenic Rubber	Small, black, granular, rubbery
B Ethylene Propylene Diene Monomer (EPDM)	Large, black, hard rubber, shredded
C Thermo Plastic Elastomer (TPE-Plastic)	Green, medium, cylindrical (all uniform shape)
D Polyolefin	Darker green, granular, medium, shredded
E Coated Sand	Fine, small, beige-white
F Coated Sand	Small, green, coarse, granular
G Vegetable	Dark brown, heterogeneous, soil, thin roots interspersed
H Walnut Shell	Light brown, coarse, small pieces
I Coconut and Cork	Medium brown, mixture and small roots or hairs, medium pieces of cork and soil
Fibers	
1 PolyEthylene Fiber with nylon root	Long individual strands with smaller and shorter light brown strands, back is green
2 Slit Fiber (polyethylene)	Long groups of individual strands twisted together, back is black
3 Astroturf (Secured to Backing with Metal Fasteners)	Short curly pieces, woven together, back is white and green
4 Nylon	Short wavy, individual strands, back is

	white
5 Nylon/Nylon Roots	Medium straight green strands with shorter wavy brown strands, back is fuzzy green
6 Nylon-Recycled backing	Long green strands, back grey with other colors interspersed
7 Mono filament (PolyEthylene)	Long green strands, black back
8. PE Latex Backing	Medium, wavy, green strands, beige back with green lines, front also interspaced with different green material

The comprehensive suite of chemical analysis needed to complete the characterization included both chemical measurements of the bulk materials, and tests of the bioavailability of the same materials. For the latter we included bioavailability tests for potential ingestion, dermal uptake, and absorption after inhalation using biofluids relevant for each of those exposure routes. The reason for conducting tests of bioavailability was to provide data that gives information that is much closer to the internal exposures and eventual doses that could be of significance to public health. The selection of all routes of entry that could lead to internal exposures is due to the activities that are participated in by athletes and others on fields. Included are contact sports, and play activities. EOHSI has had many years of experience with each of the bioaccessibility tests, with synthetic biofluids *in vitro*, and the results that were obtained provide a much firmer basis for estimation of risk for these three separate routes of exposure.

The plan included measuring potential chemicals of concern within the products, including elemental species and semi-volatile compounds. Some of these will be bio-available for all three routes of exposure while others will be more limited in the potential pathways for entry into the body. In all cases, determination of the amount of the contaminants present in the raw material already in service is essential. The samples and analytical techniques are summarized below,

Samples:

Raw Crumb: Nine new crumb infill products and eight new turf products were selected and samples were obtained for analysis of composition and biofluid extraction (see Table 2).

Fields that Use Crumb Products: We contacted local communities that use crumb in-fill products and obtained samples of the infill material actually on the field and were analyzed for metals and organics as outlined below. For the selected fields we collected information on the manufacturer, age of the field, and general use of the field (Table 3).

Table 3: Field Collected Sample Information

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Location	Turf Age (yrs)	Turf Manufacturer
AA Woodbridge - High School	5	
BB Monroe - Older High School	6	Field Turf
CC Westfield – Town Recreational	6	Sportex Omni grass 41
DD East Brunswick - Town Recreational	2	Field Turf
EE Monroe - Newer High School	2	Field Turf
FF North Brunswick – Town Recreational	3	
GG Piscataway - High School	7	

Analytical Methods:

To quantify total metal concentration, the crumb materials and associated turf were first digested using a microwave sample digester CEM Mars X. The samples were digested in concentrated nitric acid and diluted to a final acid concentration of approximately 5%.

For metals analysis, the diluted sample extracts were analyzed by inductively coupled plasma mass spectrometry on a Thermo X5 instrument. All the standard solutions were prepared in 5% HNO₃. The sample masses were scanned from Lithium (Li) through Uranium (U) for semi-quantitative analysis. A suite of 25 elements including Copper (Cu), Lead (Pb), Tin (Sn), Cadmium (Cd), Chromium (Cr) and Manganese (Mn), were quantified during the analysis process. This allowed for concentrations of key elements to be measured and other elements identified that may have been at higher concentrations in the infill or turf. Where appropriate, an average of multiple isotopes was used to quantify each element. All of the necessary QA/QC protocols were maintained throughout the extraction and analysis process.

VOC and SVOC analysis were done by GC/MS coupled with solid phase micro-extraction (SPME). Sections of turf or crumb fill were placed in a sample vial and heated to 60°C to sample the VOCs and SVOCs. This temperature was used to simulate the evolution of these compounds from the field on a very hot day where surface temperatures of the turf field could reach >120°F (50°C). These organic analytes were concentrated on a SPME needle and then thermally desorbed into a GC/MS. A general scan was performed on all compounds eluting from the fiber to indentify each compound. The mass spectrum acquired from each analyte was then matched to a mass spectrum from a library database of more than 64,000 compounds known to be volatilized under GC conditions.

The results from the analyses were assembled in tables for the purposes of inter-comparisons of each crumb infill product and samples taken from individual fields. They have been categorized according to product and type of analysis with the analytical results listed for each. This first level of analysis included the identification of significant concentrations of material in each

crumb-turf product or field. The results were compared to available guidelines or standards for soil or dust to identify compounds that have reported toxicity or are regulated in the environment.

Biofluid extractions:

To quantify the bioavailability of hazardous chemicals found in the crumb infill and associated turf product, biofluid extractions were performed prior to the metal and organic analysis. Bioavailability test was performed concerning the following three areas of exposure using the prepared synthetic solutions for digestive, lung and sweat typically employed at EOHSI and have been documented to be functional analogs of actual biological fluids (Hamel, Ellickson et al. 1999) (Ellickson, Meeker et al. 2001) (Buckley, Hamel et al. 1996; Buckley, Gilmartin et al. 1997; Buckley, Skorupsky et al. 1998)

A.1) Ingestion – Digestive Fluid (Saliva / Gastric / Intestinal Fluid) extraction

The turf samples were dissolved in the artificial Saliva, Gastric and Intestinal fluid using the following procedure, and after filtration divided into equal amounts for metal and organic analysis. Bulk solutions of artificial Gastric fluid, Intestinal fluid and Digestive fluid were prepared to provide 100 ml of Gastric, 100 ml of Intestinal and 8 ml of Saliva fluid for digesting each sample. Each piece of artificial turf was cut into a 4cm x 4 cm segment or 200 mg of each crumb/infill was weighed for extraction. The Gastric fluid was prepared on the day of extraction, but artificial Saliva and Intestinal were prepared ahead of time and stored at 4 degrees Centigrade.

The components of the Saliva extraction fluid include: 0.004 M Calcium Chloride Dehydrate, 0.4% w/v Mucin, 0.005 M Potassium Chloride, 0.007 M Sodium Chloride, 0.004 M Sodium Phosphate Dibasic, and 0.017 M Urea.

The gastric fluid analogue was prepared following recommendations of the U.S. Pharmacopoeia, which is utilized in drug dissolution studies (U.S. Pharmacopoeia 1990).

The artificial gastric fluid was prepared on the day of use and contains 0.03 M Sodium Chloride, 0.084 M Hydrochloric Acid, and 0.32% (w/v) Pepsin.

The artificial intestinal fluid was a 0.2 M Solution of Sodium Bicarbonate.

Digestive Fluid (Saliva / Gastric / Intestinal) Extraction was done by mixing approximately 200 mg of infill or the 4cm x 4cm of cut pieces of turf with 8 ml of the artificial saliva in a Nalgene bottle, and adding 100 ml of gastric fluid (pH = 1.4 ± 0.2) throughout the extraction period. The samples were placed into a constant temperature bath set at 37°C and shaken for 2 h at 90 cycles per minute. After incubation, 54 ml (half of the mixture) was placed in a new bottle and 100 ml Intestinal fluid was added. The constituted *saliva-gastric-intestinal* (pH = 6.5 ± 0.1) samples were shaken for another 2h at 37°C after adding dilute HCl to adjust the pH to 6.5. The samples were reintroduced to the original bottles containing the turf and again were shaken for another 2h at 37°C. Samples were filtered using Cellulose Membrane filters (Whatman, Lot D1321). Two 10 ml of the final extracted solution were used for metal and organic analyses.

A nitric acid microwave digestion procedure was used to prepare the extracts for the metal analysis by Inductively Coupled Plasma/Mass Spectroscopy (ICP/MS). The 10 ml *saliva-gastric-intestinal* fluid extract was divided into two equal portions, one for analysis and second for backup. The extract was divided into five 1ml Eppendorf tubes, dried in a vacuum dryer for 4 hrs, 0.2 ml of concentrated nitric acid was added to each tube, and left over night to digest. The contents of all 5 tubes were combined in a single 50 ml centrifuge tube, with each Eppendorf tube washed into the 50 ml tube using 0.2ml of HNO₃. The combined extract was further digested to degrade any residual organic matter using 13 steps of alternating microwave heating and centrifugation for durations of 2 and 5 minutes, at 300W energy. The prepared digests were diluted to 10 ml using DI water and analyzed by ICPMS. The extraction and incubation of the samples was completed within a single day, but microwave digestion could be done on a subsequent day. The organic analysis was done performed using a direct solid phase micro extraction (DI-SPME) to concentrate the semivolatile organic analytes from 10 mL of the digestive fluid extract followed by SPME-GC/MS analyses as described below.

A.2) Dermal uptake - Sweat Biofluid Extraction

A synthetic sweat solution was prepared using NaCl, Ammonium Chloride, Urea, Lactic Acid, and Glacial Acetic Acid. The sweat solution with adjusted to pH 5.3 using a dilute NaOH solution and stored in a Nalgene bottle. Then, 20 ml of the sweat solution was added to each sample or blank and shaken in a water bath at 37°C for 1 hr. The extract was split into two 10 ml solutions and transferred into two 15 ml centrifuge tubes, one for metal and a second for organic analyses. Samples were centrifuged for 5 min, speed 6, and the supernatant was transferred to second set of 15 ml tube and centrifuged again for 10 min with the same speed, prior to metal and organic analysis. The supernatant was diluted 30-fold with 5% nitric acid (EMD Omni Trace, ultra high purity and 18.2 megaohm water, Milli-Q, Millipore Corp) prior to analysis for metals by ICP-MS. The portion for the organic analysis was done using a direct solid phase micro extraction (DI-SPME) to concentrate the semivolatile organic analytes from 10 mL of the sweat biofluid extract followed by SPME-GC/MS analyses as described below.

A.3) Inhalation - Lung Biofluid Extraction

The synthetic lung fluid (SLF) was prepared using MgCl₂, NaCl, KCl, HPO₄, Na₂SO₄, CaCl₂.2H₂O, NaAcetate.3H₂O, NaHCO₃, and Na₃Citrate.3H₂O. A total of 0.20 g of fresh DiPalmitoyl Lecitin was added to 100 ml of the solution, and sonicated till all the material was dispersed. 10 ml of lung solution was added to approximately 100 mg of infill or blank in Nalgene bottles. The bottles were shaken in a water bath at 37°C at 30 RPM for 24 hours. The supernatant was transferred to a 15ml tube, centrifuged for 15 minutes at speed 6, transferred to a new 15 ml tube, and centrifuged again for 5 min at speed 6. Then, 1 ml of the supernatant was transferred in a new 50 ml tube for metals analysis and 8 ml was transferred into a 15 ml tube for organic analysis. The synthetic lung fluid was prepared for metal analysis by centrifuging the supernatant until it was free of particles. Then 1 ml of nitric acid (EMD Omni Trace, ultra high purity) was added and allowed to react overnight in a 50 ml. polypropylene centrifuge tube (VWR Scientific). The samples were microwaved once at 300W, 75%, 5 min, three times at 300W, 100%, 5min., and twice at 300W, 100%, 10 min. The sample was diluted to 10 ml using de-ionized water (18.2 megaohm) and further diluted 5-fold using 5% nitric acid (EMD Omni

Trace, ultra high purity and 18.2 megaohm water, Milli-Q, Millipore Corp). The SLF was prepared for organic analysis using a direct solid phase micro extraction (DI-SPME) to concentrate the semivolatile organic analytes from 10 mL of the SLF extract followed by SPME-GC/MS analyses as described below.

A 4) Direct Material Extraction

Nitric Acid (50%) Extraction

Between .17 and .22 g of sample were accurately weighed into 50 ml. centrifuge tubes (VWR Scientific) The samples were reacted with 5 ml of 50% nitric acid (EMD Omni Trace, ultra high purity and 18.2 megaohm water, Milli-Q, Millipore Corp) at room temperature for 6 days. The samples were microwaved twice in a Mars X microwave oven (CEM Corp, Matthews, NC) using 300W, 50% power, for 5 min. The digests were diluted to 25 ml. The samples were then centrifuged until the supernatant was free of particles. An aliquot of supernatant was diluted 20-fold using 5% nitric acid before analysis by ICP/MS.

Destructive nitric acid digestion

Between .17 and .22 g of sample were accurately weighed into microwave pressure vessels (HP-500, CEM Corp, Matthews, NC). The samples were reacted with 2 ml of nitric acid (EMD Omni Trace, ultra high purity) for four days. The pressure vessels were sealed and microwaved in a Mars X microwave oven (CEM Corp, Matthews, NC) controlling the temperature and using 300W, 100% power, 10 min., ramp to 180C, and a 20 min. hold. When the vessels were cool, they were carefully vented in a hood. The contents were rinsed into 50 ml centrifuge tubes (polypropylene, VWR Scientific) and diluted to 40 ml using de-ionized water (18.2 megaohm, Milli-Q, Millipore Corp). The samples were then centrifuged, for 10 min. at 32,000 rpm (CL2 Thermo Scientific). Five ml of supernatant was removed and the supernatant was re-centrifuged for 30 min. at 36,000 rpm until the supernatant was free of particles. One ml of supernatant was removed and diluted to 10 ml using 5% nitric acid (EMD Omni Trace acid and 18.2 megaohm water) for analysis by ICP/MS.

Total SVOC Sample Extraction

A headspace (HS)-SPME method was used for turf and soil samples extraction. A CTC Analytics Combi PAL injector with SPME agitator attachment (Zwingen, Switzerland) was used for agitation and heating of samples as well as injection into the GC/MS. A SPME fiber holder for Leap Combi PAL autosampler was used to hold the SPME fiber during extraction and injection.

A 5 Instrumental Conditions for Metal Analyses

For metals analysis the extract samples will be analyzed by inductively coupled plasma mass spectrometry on a Thermo X5 instrument. Standards for instrumental analysis were prepared from solutions obtained from High Purity Standards. Quality assurance checks were run at intervals using National Institutes of Standards and Technology Trace Elements in Water. The sample masses were scanned from Lithium (Li) through Uranium (U) for semi-quantitative

analysis. Quantitative results were reported for the following elements, along with the isotopes evaluated. These metals were selected to be reported based on their having potential adverse health effects or being present in high concentrations in the samples. The metals reported include: Beryllium (9), Magnesium (24), Titanium (47), Vanadium (51), Chromium (52, 53), Copper (65), Arsenic (75), Selenium (82), Silver (107), Cadmium (111) and Lead (206, 207, 208). This allowed for concentrations of key elements to be measured and other elements found in high concentrations were identified. Where appropriate, an average of multiple isotopes was used to quantify each element. All of the necessary QA/QC protocols will be maintained throughout the extraction and analysis process.

A 6 Instrumental Conditions for SVOC Analyses

A 65 μm Polydimethylsiloxane/Divinylbenzene (PDMS/DVB) StableFlex™ fiber (Supelco, Bellefonte, PA) were used for both DI/HS-SPME. The Combi PAL injection/sample preparation program for DI-SPME was as follows: extraction time of 50 min, desorption time of 10 min, preinjection time of 2.58 min, incubation temperature of 45 °C, agitation speed of 350 rpm, agitation on time of 5 seconds, agitation off time of 2 seconds, vial penetration 31.0 mm, and injection penetration of 54.0 mm. All parameters were the same for HS-SPME except the incubation temperature and vial penetration depth, which were 55 °C and 25.0 mm, respectively.

A Varian CP-3800 gas chromatograph coupled to a Saturn 2200 GC/MS ion trap mass spectrometer (Walnut Creek, CA) was used for analysis. A septum programmable split/splitless injector (Varian 1079) was used in the splitless mode at 250 °C. The gas chromatograph oven was equipped with a 30 m 5% phenyl/95% dimethylsilicone fused silica DB-XLB capillary column with a 0.25 mm ID and 0.25 μm film thickness (JW Scientific, Folsom, CA). Helium was used as the carrier gas with a flow rate of 33 cm/s. The column oven program was as follows: inject at 35 °C and hold in splitless mode for 1 min, 35–55 at 2.5 °C/min, 55–80 at 5 °C/min, 80–130 at 7.5 °C/min, 130-200 at 4.5°C/min, 200-260 at 5.5°C/min, 260-330 at 6.5°C/min, and hold for 7.10 min for a final run time of 65 min.

The ion trap mass spectrometer (ITMS) was operated in EI positive mode and tuned with perfluorotributylamine (FC-43) according to the manufacturer's manual. The electron multiplier voltage, emission current, multiplier offset, and modulation amplitude were set at 1800–2100 V, 40 μA , +/- 200, and 7.5 V, respectively. The transfer line and ion trap manifold were 270 and 225 °C, respectively. The mass range scanned was from 40 to 300 m/z until 15 min and 45 to 600 from 10 min to 65 mins at 0.59 s/scan rate. Saturn GC/MS workstation version 6.6 software was used for data acquisition, integration, and quantification. Analytes were identified by comparing the mass spectrum (after background subtraction) to the library and NIST/EPA/NIH 2008 mass spectral library. As with the identification of other unknowns, a positive identification was defined as one with a correlation to the library spectrum of > 70% fit. EPA 525 PAH internal standards (Supelco) were added to the sample run as quality control checks and for rough quantitation and retention time quality control. The rough quantitation of SVOCs detected from the samples were based on the calibration curve of 3 PAH standards eluted at three different retention times of GC/MS TICs.

Evaluation of Toxicity:

The organic compounds with the top 10% of peak areas identified in the SPME scan were listed for each extract, this exceeded 550 unique compounds. These compound names were then compared to toxicological data bases to determine if compounds extracted into the biological fluids with the largest peak areas (i.e. in the highest amounts) have known adverse toxicological effects. The following databases were searched: US EPA PALs, ATSDR Toxicology Profiles, ATSDR MRL 2010, CERCLA Priority Hazardous List 2007, EPA Final AEGLs, EPA Drinking Water Advisory, and Environment, Health and Safety Online Carcinogens. To facilitate the search and to make it less sensitive to specific chemical nomenclature used by the system that generated the names during the library search and the listing in the toxicological data bases, the root name of the chemical was initially searched using the find command in Excel rather than using the full name. An example of using the root name rather than the full name was to search on benzothiazole which then identified benzothiazole; 2-benzothiazolethione, 3-methyl; and benzothiazole, 2-(methylthio); and 2,2'-bibenzothiazole; in the list of compounds identified in the biofluids extracts but not in the toxicological databases reducing the number of searches for analogues of benzothiazole from five to one. Compounds with similar root names were done as a group and if the root name was not found in the toxicological data bases then it was assumed that no adverse toxicity has been reported for those compounds in the data bases searched. If the root name generated a match in any of the data bases, the full name of the compound that had a match was then compared manually to ascertain if the matched compound was a complete match with the compounds present in any of the data bases. In addition, the general toxicology literature was reviewed for the adverse properties and associated health outcomes of those compounds and to identify any pseudonyms to verify that they were not present in the toxicological databases.

Potential risk characterization for compounds in the extracts and identified to be in the search toxicological databases are to be evaluated for based upon the actual concentrations of the chemicals present in products. A formal risk calculation would be completed for each compound whose levels were above any regulatory standard. If some of the compounds identified and reported in the appendices are shown to have adverse toxicological properties in the future then a decision on conducting a risk assessment could be made based on the estimated, calculated concentrations reported.

RESULTS

Metal Blanks for QA/QC

A single metal blank was run with each set of sample extracts. Several of the metals had measurable levels since the salts used to prepare biofluids contained trace levels of transition metals. To evaluate whether a blank correction was needed for any metal above the limit of detection in the blank extract the following criteria was used: If the sample value was less than twice the blank value then sample concentration in the extract was replaced by twice the blank value and reported as less than that value. A value of twice the blank level was used to provide a conservative estimate of the maximum expected metal concentration when the sample concentration was not that high but the blank was above the instrument’s detection limit. When the sample concentration exceeded twice the blank value, the blank value was subtracted from the sample extract concentration value and that difference was used to calculate the amount of metal extracted from the turf or infill. The concentrations in the blank extracts are given in Table 4. The variations in the blank are likely due to variations in the trace metal content present in the salts used to make each artificial fluid.

Table 4 Metal Concentrations in Blank in Synthetic Biofluid ppb (ng/ml)

Sample Type	Beryllium	Magnesium	Titanium	Vanadium	Chromium	Copper
sweat 23/02/11	< 2	< 152	25	113	17	13
sweat 26/10/10	< 2	< 100	10	69	14	< 1
sweat 26/10/10	< 2	< 100	6.0	41	12	< 1
Lung 22/02/11	< 3	10200	22	41	< 5	14
Lung 14/10/10a	< 5	8840	60	11	< 3	< 5
Lung 14/10/10b	< 5.0	< 250	73	< 5.0	6.4	7.2
S/G/I 17/02/11	< 0.1	< 10	< 0.1	< 0.1	< 0.1	< 0.1
S/G/I17/02/11	< 0.1	< 10	< 0.1	< 0.1	< 0.1	< 0.1
Sample Type	Arsenic	Selenium	Silver	Cadmium	Mercury	Lead
sweat 23/02/11	11	< 9	< 9	< 2		< 2
sweat 26/10/10	< 6	< 20	< 2	< 1	< 1	3.0
sweat 26/10/10	< 6	< 20	< 2	< 1	< 1	2.0
Lung 22/02/11	5	50	15	3		< 3
Lung 14/10/10a	< 5	< 25	< 5	< 3	< 3	< 3
Lung 14/10/10b	< 5	< 25	< 5	3	< 25	< 30
S/G/I 17/02/11	< 0.3	< 0.3	< 0.1	< 0.1		< 0.1
S/G/I17/02/11	< 0.3	< 0.3	< 0.1	< 0.1		< 0.1

S/G/I - Saliva/Gastric/Intestinal Fluid

A) Metals analysis ICPMS

None of the metals detected in the infill samples were found to be at levels which present health concerns when compared to NJ DEP soil cleanup standards (http://www.nj.gov/dep/srp/guidance/scc/scc_0599.pdf) Tables 5-8. None of the new infill material, or material collected from field samples had total digestion levels above any clean-up standards for soils and all artificial biofluid extraction metal levels for the infill material are likewise low, <1µg/g of material. Only a single new fiber sample (#3) exceeded the cleanup level for any of the metals, that of lead and chromium (if the chromium was all Cr (VI)) suggesting that lead-chromate paint was being used as the colorization agent in the turf. The Pb/Cr ratio for that sample was 5.38 which exceeds the theoretical ratio of lead chromate of 3.98, suggesting some additional lead compounds present in the pigment or possibly that the Cr is present as Cr+6. Thus, the need to check new fiber materials for the presence of lead-chromate paint still exists and the use of that type of coloring agent should be banned from use in these materials since as they degrade in the sun the lead could be released.

The following trace metals of concern were below detection in all or nearly all the samples for the artificial biofluids and the nitric acid extracts – beryllium, arsenic, selenium, silver, and cadmium. The lead, copper and magnesium were higher in the total extracted and digestive fluid compared to the sweat and lung fluids, while that of vanadium and chromium were higher in the sweat fluid, followed by the lung fluid and then the digestive fluid or the total extract. These differences likely reflect the solubility of different metal salts in acidic (total and digestive fluid) compared to the near neutral pH (sweat and lung fluid) conditions. The nitric acid (50%) extraction had lower amounts of lead and cadmium than the gastric biofluids digest for several samples. To investigate whether these differences might be due to heterogeneity in the infill and turf material, field sample CC, which had a two-fold discrepancy in lead loading between the two methods, was analyzed in triplicate using the nitric acid (50%) extraction procedure and using a destructive nitric acid method in which the infill material was completely digested. The results are given in Table 9b which clearly indicate that the infill material has both more than a two-fold variability in the lead content of the material and even a greater variability in lead loading on the surface of the infill particles which Nitric acid (50%) method extracts (Table 9a).

Table 5. Metal Concentration in Sweat Extract (µg of metal extract per g turf)

SWEAT						
ID	Beryllium	Magnesium	Titanium	Vanadium	Chromium	Copper
New Infill						
A	<0.2	9.7	0.6	20.6	1.0	0.54
B	<0.2	20.6	0.6	12.1	0.7	<0.08
C	<0.2	14	0.7	9.7	0.8	<0.08
D	<0.2	170	0.8	8.1	0.8	<0.08
E	<0.2	<9	0.8	8.2	0.9	<0.08
F	<0.1	<7	0.8	6	1.1	<0.07
G	<0.2	975	1.0	7.8	1.0	0.16
H	<0.2	88.8	1.2	8.2	1.2	0.23
I	<0.2	451	1.3	7.7	1.1	0.28
New Fiber						
1	<0.01	8.8	0.1	0.5	0.1	0.03
2	<0.02	18.2	1.1	0.8	0.1	0.08
3	<0.05	3.5	0.2	1.6	1.3	0.08
4						
5	<0.02	12.1	0.4	0.5	0.1	1.6
6	<0.04	3.3	0.2	1	0.3	0.21
7	<0.06	13	0.2	1.1	0.3	0.12
8	<0.05	10.1	0.2	0.9	0.3	0.09
Field Sample						
AA	<0.2	<10	3.9	17.9	2.6	2.1
BB	<0.2	<10	3.9	17.6	2.6	2.1
CC	<0.2	<10	4.0	18.3	2.7	2.2
DD	<0.1	<10	3.2	14.6	2.1	1.7
EE	<0.2	<10	4.0	18.4	2.7	2.2
FF	<0.2	<10	3.9	17.7	<3	<2
GG	<0.1	<10	3.3	15.1	2.2	1.8
NJDEP Residential Soil Clean- Up Value	Method MDL	None	None	370	20 as Cr(VI)	600

Table 5 cont. Metal Concentration in Sweat Extract (µg of metal extract per g turf)

SWEAT					
ID	Arsenic	Selenium	Silver	Cadmium	Lead
New Infill					
A	<0.5	<1.9	<0.1	<0.09	1.6
B	<0.5	<1.6	<0.1	<0.08	0.15
C	<0.5	<1.6	<0.1	<0.08	0.13
D	<0.4	<1.6	<0.1	<0.08	0.18
E	<0.5	<1.7	<0.1	<0.08	0.14
F	<0.4	<1.4	<0.1	<0.07	0.24
G	<0.5	<1.8	<0.1	<0.09	0.09
H	<0.5	<1.9	<0.1	<0.09	0.13
I	<0.5	<1.9	<0.1	0.11	0.14
New Fiber					
1	<0	<0.1	<0.01	<0	0.03
2	<0	<0.2	<0.02	<0.01	0.05
3	<0.1	<0.5	<0.05	<0.02	11.8
4					
5	<0	<0.2	<0.02	<0.01	0.07
6	<0.1	<0.4	<0.04	<0.02	0.14
7	<0.1	<0.6	<0.06	<0.03	0.1
8	<0.1	<0.5	<0.05	<0.02	0.08
Field Sample					
AA	1.7	<0.7	<0.7	<0.2	1.5
BB	1.7	<0.7	<0.7	<0.2	1.2
CC	1.7	<0.7	<0.7	<0.2	0.6
DD	1.4	<0.6	<0.6	<0.1	0.8
EE	1.7	<0.7	<0.7	<0.2	0.6
FF	<1.7	<0.7	<0.7	<0.2	<0.2
GG	1.4	<0.6	<0.6	<0.1	1.2
NJDEP Residential Soil Clean- Up Value	20	63	110	39	400

Table 6. Metal Concentration in Lung Extract (μg of metal extract per g turf)

LUNG						
New Infill						
ID	Beryllium	Magnesium	Titanium	Vanadium	Chromium	Copper
A	<0.4	744	1.52	2.75	<0.2	0.58
B	<0.5	804	2.80	2.95	<0.2	<0.5
C	<0.4	662	2.96	2.55	<0.2	<0.4
D	<0.5	755	3.36	2.45	0.43	<0.5
E	<0.4	668	4.06	2.00	<0.2	<0.4
F	<0.5	769	4.26	1.48	0.66	<0.5
G	<0.4	971	5.09	1.37	<0.2	<0.4
H	<0.5	953	6.68	1.54	<0.2	0.58
I	<0.4	646	5.84	0.65	<0.2	<0.4
New Fiber						
1	<0.05	90.3	0.32	0.48	0.027	<0.05
2						
3	<0.2	300	0.92	1.53	0.12	<0.2
4						
5	<0.04	77.2	0.20	0.39	0.028	2.01
6						
7						
8	<0.2	306	0.96	1.39	<0.09	<0.2
Field Sample						
AA	<0.02	<100	<0.3	<0.6	<0.04	<0.2
BB	<0.03	<100	<0.4	<0.7	<0.05	<0.2
CC	<0.02	<100	<0.3	<0.5	<0.03	<0.2
DD	<0.02	<100	<0.3	<0.6	<0.04	<0.2
EE	<0.02	<100	<0.3	<0.5	<0.03	<0.2
FF	<0.02	<100	<0.3	<0.5	<0.03	<0.2
GG	<0.02	<100	<0.3	<0.6	<0.04	<0.2
NJDEP Residential Soil	Method				20 as	
Clean- Up Value	MDL	None	None	370	Cr(VI)	600

Table 6 cont. Metal Concentration in Lung Extract (μg of metal extract per g turf)

Lung					
New Infill					
ID	Arsenic	Selenium	Silver	Cadmium	Lead
A	<0.4	<2	<0.4	<0.2	0.26
B	<0.5	<2	<0.5	<0.2	0.23
C	<0.4	<2	<0.4	<0.2	<0.2
D	<0.5	<2	<0.5	<0.2	<0.2
E	<0.4	<2	<0.4	<0.2	<0.2
F	<0.5	<2	<0.5	<0.2	<0.2
G	<0.4	<2	<0.4	<0.2	<0.2
H	<0.5	<2	<0.5	<0.2	<0.2
I	<0.4	<2	<0.4	<0.2	<0.2
New Fiber					
1	<0.1	<0.3	<0.05	<0.02	<0.02
2					
3	<0.2	<0.9	<0.2	<0.08	0.61
4					
5	<0.04	<0.2	<0.04	<0.02	<0.02
6					
7					
8	<0.2	<0.9	<0.2	<0.09	0.11
Field Sample					
AA	<0.04	<0.4	<0.1	<0.02	0.023
BB	<0.05	<0.5	<0.1	<0.03	<0.03
CC	<0.03	<0.3	<0.1	<0.02	<0.02
DD	<0.04	<0.4	<0.1	<0.02	0.023
EE	<0.03	<0.3	<0.1	<0.02	<0.02
FF	<0.03	<0.3	<0.1	<0.02	<0.02
GG	<0.04	<0.4	<0.1	<0.02	0.023
NJDEP Residential Soil Clean- Up Value	20	63	110	39	400

Table 7. Metal Concentration in Digestive Biofluid Extract (µg of metal extract per g turf)
Saliva/Gastric/Intestinal

ID	Beryllium	Magnesium	Titanium	Vanadium	Chromium	Copper
New Infill						
A						
B	<0.4	<800	<10	<1	<5	10
C						
D						
E	<0.4	<800	<10	<1	<5	10
F	<0.4	<1000	<10	<1	<6	32
G	<0.4	<900	<10	<1	<6	12
H	<0.4	<1000	<10	<1	<7	<20
I	<0.4	4630	<10	<1	<7	<20
New Fiber						
1						
2	<0.4	55	<0.2	0.06	<0.1	<0.2
3	<0.4	<10	<0.2	0.02	0.74	<0.2
4	<0.4	6.5	<0.1	<0.01	<0.06	<0.1
5	<0.4	19	<0.1	0.02	<0.04	1.6
6	<0.4	<50	<0.8	0.12	<0.3	<0.8
7	<0.4	<60	<1	<0.1	<0.4	<0.9
8	<0.4	<90	<1	<0.1	<0.6	<1
Field Sample						
AA	<0.4	<900	<10	<1	<6	<10
BB	<0.4	<900	<10	<2	<6	<20
CC	<0.4	<800	<10	<1	<5	<10
DD	<0.4	<900	<10	<2	<6	<20
EE	<0.4	<900	<10	<1	<6	<10
FF	<0.4	<800	<10	<1	<5	<10
GG	<0.4	<800	<10	<1	<5	<10
NJDEP Residential Soil Clean- Up Value	Method MDL	None	None	370	20 as Cr(VI)	600

Table 7 cont. Metal Concentration in Digestive Biofluid Extract (μg of metal extract per g turf)
Saliva/Gastric/Intestinal

	Arsenic	Selenium	Silver	Cadmium	Lead
New Infill					
A					
B	<0.1	<0.9	<0.2	<3	23
C					
D					
E	<0.2	<1	<0.2	<3	5.3
F	0.25	<1	0.21	<3	66
G	0.48	<1	<0.2	<3	8.7
H	<0.2	<1	0.21	<4	23
I	0.45	1.5	0.23	<4	8
New Fiber					
1					
2	<0.04	<0.04	<0.01	<0.05	0.07
3	<0.03	<0.03	<0.01	<0.05	4.7
4	<0.02	0.02	<0.01	<0.03	1.6
5	<0.02	<0.02	<0.01	<0.02	<0.03
6	<0.01	<0.06	<0.2	<0.2	<0.2
7	0.02	<0.07	<0.2	<0.2	<0.3
8	0.03	<0.1	<0.2	<0.3	0.46
Field Sample					
AA	<3	<2	<0.4	2.9	2.7
BB	<3	<2	<0.5	2.5	5.0
CC	<2	<2	<0.4	2.6	258
DD	<3	<2	0.90	6.5	3.5
EE	<3	<2	<0.4	4.2	3.7
FF	<2	<2	<0.4	11.	2.5
GG	<2	<2	<0.4	3.8	4.3
NJDEP Residential Soil Clean- Up Value	20	63	110	39	400

Table 8. Metal Concentration in Nitric Acid Digest (µg of metal extract per g turf)

ID	Beryllium	Magnesium	Titanium	Vanadium	Chromium	Copper
New Infill						
A	<0.7	87.9	1.8	0.75	<0.7	36.2
B	<0.7	90.7	<0.7	0.71	<0.7	<0.7
C	<0.7	1310	9.5	0.74	0.75	2.5
D	<0.4	7770	3.0	<1	3.2	1.8
E	<0.1	<7	0.47	0.07	0.08	0.09
F	<0.1	<7	1.5	<0.1	3.8	0.15
G	<0.7	4320	18	<3	15.7	10.5
H	<0.1	147	0.47	0.07	0.77	3.8
I	<0.7	821	15	0.74	1.5	5.2
New Fiber						
1	<0.2	7150	21.2	<0.8	11	4.2
2	0.32	4160	550	<20	7.0	16.6
3	<0.5	<50	1.8	0.50	820	3.6
4	<0.3	672	4.6	<0.8	4.0	1.4
5	0.51	11500	818	<40	11	109
6	<0.3	<30	1.9	0.33	3.0	1.4
7	<0.04	1050	4.5	<0.2	0.34	2.6
8	<0.3	963	0.81	<0.6	5.7	0.69
Field Sample						
AA	<0.4	46.6	1.9	0.36	0.45	8.8
BB	<0.7	<70	3.0	0.73	<0.7	20.2
CC	<0.7	<70	3.2	0.74	<0.7	9.3
DD	<0.7	<70	3.0	0.71	<0.7	14.8
EE	<0.7	90.8	2.4	0.74	<0.7	58.5
FF	<0.7	151	9.6	<0.8	0.92	15.6
GG	<0.7	159	6.6	0.71	<0.7	15.2
NJDEP Residential Soil Clean- Up Value	Method MDL	None	None	370	20 as Cr(VI)	600

Table 8 cont. Metal Concentration in Nitric Acid Digest (μg of metal extract per g turf)

	Arsenic	Selenium	Silver	Cadmium	Lead
New Infill					
A	<0.7	<1	<10	1.1	17.7
B	<0.7	<1	<10	<0.7	<0.7
C	0.8	<1	<10	<0.7	1.2
D	<0.4	<0.6	<6	0.61	7.1
E	<0.1	<0.1	<1	<0.1	0.07
F	<0.1	<0.1	<1	<0.1	0.04
G	<0.7	<1	<10	<0.7	1.7
H	<0.1	<0.1	<1	<0.1	<0.01
I	<0.7	<1	<10	<0.7	<0.7
New Fiber					
1	0.36	<0.3	<3	<0.2	47.3
2	2.5	1.7	<2	0.1	4.0
3	<0.5	<0.8	<8	<0.5	4410
4	<0.3	<0.5	<4	<0.3	11.0
5	4	2.9	<3	<0.2	5.2
6	<0.3	<0.5	<5	<0.3	1.1
7	<0.04	<0.1	<0.7	<0.04	0.53
8	<0.3	<0.4	<4	<0.3	17.9
Field Sample					
AA	<0.4	<0.6	<6	<0.4	4.1
BB	<0.7	<1.2	<10	<0.7	37.0
CC	<0.7	<1.2	<10	<0.7	142
DD	<0.7	<1.2	<10	<0.7	40.3
EE	<0.7	1.3	<10	<0.7	7.6
FF	<0.7	<1.2	<10	<0.7	52.9
GG	<0.7	<1.2	<10	<0.7	118
NJDEP Residential Soil Clean- Up Value	20	63	110	39	400

Highlighted values exceed NJDEP soil cleanup standards

Table 9a. Metal Concentration in Nitric Acid (50%) Extract (μg of metal extract per g turf)

ID	Beryllium	Magnesium	Titanium	Vanadium	Chromium	Copper
Field Sample CC						
A	<0.2	50.0	4.12	0.338	0.503	5.87
B	<0.2	56.6	6.07	0.387	1.15	7.58
C	<0.2	60.1	3.09	<0.3	0.832	8.73
	Arsenic	Selenium	Silver	Cadmium	Lead	
A	<0.8	<0.8	<0.3	<0.1	0.362	
B	<0.8	<0.8	<0.3	0.144	19.1	
C	<0.8	<0.8	<0.3	0.220	2.29	

Table 9b. Metal Concentration in Destructive Nitric Acid Digest (μg of metal extract per g turf)

ID	Beryllium	Magnesium	Titanium	Vanadium	Chromium	Copper
Field Sample CC						
A	<0.1	17.9	16.7	1.62	1.84	9.48
B	<0.1	17.5	15.1	1.71	1.85	15.8
C	<0.1	13.8	19.2	1.44	1.16	5.66
	Arsenic	Selenium	Silver	Cadmium	Lead	
A	1.40	5.72	<0.2	0.446	6.68	
B	1.86	8.34	<0.2	0.455	16.2	
C	1.57	6.10	<0.2	0.452	7.52	

B) Organic analysis GC/MS

Identification of Compounds

A comprehensive search protocol comparing all peaks present in the SPME-GC/MS was run against the mass spectra in the NIST library to identify the peaks present in the chromatograph. Approximately half the peaks were found to match an entry in the NIST library. To select which compounds to evaluate for potential toxicological activity, the peaks from all the biofluids extracts were combined and peaks with the top 10% of abundance in peak area were compared to the toxicological databases indicated on page 12 (US EPA PALs, ATSDR Toxicology Profiles, ATSDR MRL 2010, CERCLA Priority Hazardous List 2007, EPA Final AEGLs, EPA Drinking Water Advisory, and Environment, Health and Safety Online Carcinogens). Of the several hundred compounds identified in the top 10% of abundance in peak area the only compound identified that was listed in any of the toxicological databases was toluene. Listings of the compounds in the various biofluids are given in Appendices 1- 4, which includes a large number and variety of organic materials identified at very low concentrations but for which no hazard data are currently in toxicological data bases used for regulatory purposes. Some of these compounds are being studied within the research community and may be identified as compounds of concern in the future. However, it is beyond the scope of the current evaluation to do a exhaustive literature search on every compound identified.

Targeted Compound Analyses

Since it was reported that polyaromatic hydrocarbons (PAHs) are present in the infill of artificial turf material and potentially bioaccessible by Zhang et al 2008 (Zhang, Han et al. 2008), a separate more sensitive analysis for PAHs was done even though the PAH compounds were not in the top 10% abundance of compounds identified in the biofluids. In addition, during the search of GC/MS protocols, the compounds specifically identified in the report by Connecticut Academy of Science and Engineering in June 15, 2010 (Ansoborlo, Henge-Napoli et al. 1999) (benzothiazole, butylated hydroxyanisole, n-hexadecane, and 4-(tert-octyl) phenol) and reported to be hazardous were specifically searched. The full listings of compounds identified in each of the extracts of the turf samples are given in Appendices 1 to 4.

The PAH results for the sweat, lung, digestive and total extracts are given in Tables 10, 11, 12 and 13, respectively. There are some differences in detection limits based on the mass of material extracted and the volume used of each artificial fluid. A larger volume was used for the digestive fluid as that is more representative of actual conditions. All values were below the detection limits indicated, with the exception of acenaphthylene which was just above detection in a single lung extract (Table 11) and detectable at between 0.37 and 2.48 mg/kg in the total extracts and naphthalene at 0.27mg/kg in one infill sample of the total extract (Table 13). Crumb rubber, which is used in infill, can be made from recycled tires and are expected to contain PAHs (Denly, Rutkowski et al. 2008) (Stern 2008). The extraction procedures we used indicated that little of the PAH present in the new infill material and or collected from the fields we tested are bioavailable or readily released from the crumb rubber. None of the levels found in the biofluids or the SPME analysis of the actual material exceed the NJ DEP soil cleanup criteria (NJDEP 1999) and thus do not appear to present a major health concern for outdoor fields.

Two of the compounds identified in the Connecticut Report, benzothiazol and 4-(tert-octyl) phenol, the latter identified as its synonym as 4-(1,1,3,3-Tetramethylbutyl)phenol, in the NIST

library search, were found in the total extraction at 1 ppm and 0.2 ppm respectively. A similar compound Phenol, 2,5-bis(1,1-dimethylethyl)- which is used as a UV stabilizer and has environmental but not reported human toxicity was also present in the total extract at 10 ppm. Benzothiazol was not present in the biological extraction fluid, although 2,2 bibenzothiazol, a dimer of benzothiazol, was identified at the 10 µg/L level in the digestive fluid. The 4-(tert-ocyl phenol was present in the lung and sweat fluid at 0.2 µg/L level. In addition, butylated hydroxytoluene (BHT) was identified in the Connecticut Report and found in the lung and sweat extracts, but this compound has little adverse toxicological effect and is used in common component of cosmetics and as a food additive (Lanigan and Yamarik 2002), so is not expected to be a hazard at the levels detected in artificial turf. These compounds are currently not regulated or present in the toxicological databases searched and both are high volume production compounds used in rubber formation (TOXNET 2010) (DEFRA 2008) so the exposure that might occur from using an artificial turf field is not expected to be a hazard above other common environmental exposures.

The PAHs levels were all below detection across all of the biofluids or the SPME analysis of the raw material. The total extract released more organic compounds than were extracted by any individual biofluid but the amount of organic material extracted varied greatly across the different materials. The artificial sweat fluid extracted more compounds than the other fluids. The least number of organic compounds were present in the digestive fluid which might be associated with its acid nature, though it did contain the organic compounds mucin, urea and pepsin. The transfer between the different pH during the extract to reflect the digestive process could also precipitate some larger organic compounds or cause them to adsorb to surfaces.

Table 10 Sweat Extracts – PAH Levels

ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Azobenzene	
Concentration mg/kg						
New Infill						
A	< 0.03	< 0.16	< 0.10	< 0.06	< 0.46	<
C	< 0.03	< 0.16	< 0.10	< 0.06	< 0.47	<
D	< 0.03	< 0.14	< 0.09	< 0.06	< 0.40	<
F	< 0.03	< 0.17	< 0.11	< 0.07	< 0.49	<
H	< 0.03	< 0.17	< 0.11	< 0.07	< 0.49	<
New Fiber						
1	< 0.00	< 0.01	< 0.00	< 0.00	< 0.02	<
3	< 0.00	< 0.02	< 0.01	< 0.01	< 0.04	<
5	< 0.00	< 0.01	< 0.00	< 0.00	< 0.02	<
8	< 0.00	< 0.02	< 0.01	< 0.01	< 0.06	<
Field Infill						
AA	< 0.01	< 0.07	< 0.04	< 0.03	< 0.19	<
BB	< 0.01	< 0.07	< 0.04	< 0.03	< 0.19	<
CC	< 0.01	< 0.07	< 0.04	< 0.03	< 0.20	<
DD	< 0.01	< 0.06	< 0.03	< 0.02	< 0.16	<
EE	< 0.01	< 0.07	< 0.04	< 0.03	< 0.20	<
FF	< 0.01	< 0.07	< 0.04	< 0.03	< 0.19	<
GG	< 0.01	< 0.06	< 0.04	< 0.02	< 0.16	<
NJDEP						
Residential	230	Not Listed	3400	2300	Not Listed	
Soil Clean-						
Up Value						

Note: the volume difference of each sample type resulted in different detection limits

saliva-gastric-intestinal	208 ml
Sweat	20 ml
Lung	10 ml
Total extract	10 ml

Table 10 cont. Sweat Extracts – PAH Levels

ID	Phenanthrene	Anthracene	Carbazole	Fluoranthene	Pyrene	Benzo(a) anthracene
Concentration mg/kg						
New Infill						
A	< 0.09	< 0.07	< 0.34	< 0.11	<0.09	<0.30
C	< 0.10	< 0.08	< 0.35	< 0.11	<0.10	<0.31
D	< 0.08	< 0.07	< 0.30	< 0.10	<0.08	<0.27
F	< 0.10	< 0.08	< 0.36	< 0.12	<0.10	<0.32
H	< 0.10	< 0.08	< 0.36	< 0.12	<0.10	<0.32
New Fiber						
1	< 0.00	< 0.00	< 0.01	< 0.00	<0.00	<0.01
3	< 0.01	< 0.01	< 0.03	< 0.01	<0.01	<0.03
5	< 0.00	< 0.00	< 0.01	< 0.00	<0.00	<0.01
8	< 0.01	< 0.01	< 0.05	< 0.02	<0.01	<0.04
Field Infill						
AA	< 0.04	< 0.03	< 0.14	< 0.05	<0.04	<0.13
BB	< 0.04	< 0.03	< 0.14	< 0.05	<0.04	<0.13
CC	< 0.04	< 0.03	< 0.15	< 0.05	<0.04	<0.13
DD	< 0.03	< 0.03	< 0.12	< 0.04	<0.03	<0.10
EE	< 0.04	< 0.03	< 0.15	< 0.05	<0.04	<0.13
FF	< 0.04	< 0.03	< 0.14	< 0.05	<0.04	<0.13
GG	< 0.03	< 0.03	< 0.12	< 0.04	<0.03	<0.11
NJDEP Residential Soil Clean- Up Value	Not Listed	Not Listed	10000	2300	Not Listed	0.9

Table 10 cont. Sweat Extracts – PAH Levels

ID	Chrysene	Benzo[b] fluoranthene	Benzo[k] fluoranthene	Benzo[a]pyrene	Dibenzo[a,h] anthracene
Concentration mg/kg					
New Infill					
A	< 1.00	< 1.15	< 1.29	< 1.37	< 1.83
C	< 1.02	< 1.17	< 1.31	< 1.40	< 1.87
D	< 0.89	< 1.02	< 1.14	< 1.22	< 1.62
F	< 1.07	< 1.23	< 1.38	< 1.47	< 1.97
H	< 1.06	< 1.22	< 1.37	< 1.46	< 1.95
New Fiber					
1					
3					
5	< 0.03	< 0.04	< 0.04	< 0.05	< 0.06
8	< 0.10	< 0.11	< 0.12	< 0.13	< 0.18
Field Infill					
AA	< 0.04	< 0.05	< 0.05	< 0.06	< 0.07
BB	< 0.13	< 0.15	< 0.17	< 0.18	< 0.25
CC					
DD					
EE	< 0.42	< 0.49	< 0.55	< 0.58	< 0.78
FF	< 0.42	< 0.48	< 0.54	< 0.58	< 0.77
GG	< 0.44	< 0.50	< 0.56	< 0.60	< 0.80
	< 0.35	< 0.40	< 0.45	< 0.48	< 0.64
	< 0.44	< 0.50	< 0.56	< 0.60	< 0.80
	< 0.42	< 0.48	< 0.54	< 0.58	< 0.77
	< 0.36	< 0.41	< 0.46	< 0.49	< 0.66
NJDEP Residential Soil Clean- Up Value	9	0.9 or MDL	0.9 of MDL	0.66 or MDL	0.66 or MDL

Table 11. Lung Extracts – PAH Levels

ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Azobenzene
Concentration mg/kg					
New Infill					
A	< 0.02	< 0.09	< 0.05	< 0.03	< 0.24
C	< 0.01	< 0.08	< 0.05	< 0.03	< 0.23
D	< 0.01	< 0.08	< 0.05	< 0.03	< 0.22
F	< 0.01	< 0.07	< 0.04	< 0.03	< 0.19
H	< 0.02	< 0.09	< 0.05	< 0.03	< 0.25
New Fiber					
1	< 0.00	< 0.00	< 0.00	< 0.00	< 0.01
3	< 0.00	< 0.01	< 0.00	< 0.00	< 0.02
5	< 0.00	< 0.00	< 0.00	< 0.00	< 0.01
7	< 0.00	< 0.01	< 0.01	< 0.00	< 0.03
8	< 0.00	< 0.01	< 0.01	< 0.00	< 0.03
Field Infill					
AA	< 0.01	< 0.07	< 0.04	< 0.03	< 0.19
BB	< 0.01	< 0.08	< 0.05	< 0.03	< 0.22
CC	< 0.01	< 0.05	< 0.03	< 0.02	< 0.16
DD	< 0.01	< 0.07	< 0.04	< 0.03	< 0.19
EE	< 0.01	0.08	< 0.04	< 0.02	< 0.16
FF	< 0.01	< 0.05	< 0.03	< 0.02	< 0.15
GG	< 0.01	< 0.07	< 0.04	< 0.03	< 0.19
NJDEP					
Residential Soil Clean- Up Value	230	Not Listed	3400	2300	Not Listed

Note: the volume difference of each sample type resulted in different detection limits	
saliva-gastric-intestinal	208 ml
Sweat	20 ml
Lung	10 ml
Total extract	10 ml

Table 11.cont. Lung Extracts – PAH Levels

ID	Phenanthrene	Anthracene	Carbazole	Fluoranthene	Pyrene
Concentration mg/kg					
New Infill					
A	< 0.05	< 0.04	< 0.18	< 0.06	< 0.05
C	< 0.05	< 0.04	< 0.17	< 0.06	< 0.05
D	< 0.05	< 0.04	< 0.17	< 0.05	< 0.05
F	< 0.04	< 0.03	< 0.14	< 0.05	< 0.04
H	< 0.05	< 0.04	< 0.18	< 0.06	< 0.05
New Fiber					
1	< 0.00	< 0.00	< 0.01	< 0.00	< 0.00
3	< 0.00	< 0.00	< 0.02	< 0.01	< 0.00
5	< 0.00	< 0.00	< 0.01	< 0.00	< 0.00
7	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01
8	< 0.01	< 0.00	< 0.02	< 0.01	< 0.01
Field Infill					
AA	< 0.04	< 0.03	< 0.14	< 0.05	< 0.04
BB	< 0.04	< 0.04	< 0.16	< 0.05	< 0.04
CC	< 0.03	< 0.03	< 0.12	< 0.04	< 0.03
DD	< 0.04	< 0.03	< 0.14	< 0.05	< 0.04
EE	< 0.03	< 0.03	< 0.12	< 0.04	< 0.03
FF	< 0.03	< 0.02	< 0.11	< 0.04	< 0.03
GG	< 0.04	< 0.03	< 0.14	< 0.05	< 0.04
NJDEP Residential Soil Clean- Up Value	Not Listed	Not Listed	10000	2300	Not Listed

Table 11.cont. Lung Extracts – PAH Levels

ID	Benzo(a) anthracene	Chrysene	Benzo[b] fluoranthene	Benzo[k] fluoranthene	Benzo[a]pyrene	Dibenzo[a,h] anthracene
Concentration mg/kg						
New Infill						
A	< 0.16	< 0.54	< 0.61	< 0.69	< 0.74	< 0.98
C	< 0.15	< 0.50	< 0.57	< 0.64	< 0.69	< 0.92
D	< 0.15	< 0.49	< 0.56	< 0.63	< 0.67	< 0.89
F	< 0.13	< 0.43	< 0.49	< 0.55	< 0.58	< 0.78
H	< 0.16	< 0.54	< 0.62	< 0.69	< 0.74	< 0.98
New Fiber						
1	< 0.01	< 0.03	< 0.03	< 0.03	< 0.04	< 0.05
3	< 0.01	< 0.05	< 0.06	< 0.06	< 0.07	< 0.09
5	< 0.01	< 0.02	< 0.03	< 0.03	< 0.03	< 0.04
7	< 0.02	< 0.07	< 0.08	< 0.09	< 0.10	< 0.13
8	< 0.02	< 0.06	< 0.07	< 0.08	< 0.08	< 0.11
Field Infill						
AA	< 0.12	< 0.41	< 0.47	< 0.53	< 0.57	< 0.76
BB	< 0.14	< 0.47	< 0.54	< 0.61	< 0.65	< 0.86
CC	< 0.10	< 0.34	< 0.39	< 0.44	< 0.47	< 0.62
DD	< 0.13	< 0.42	< 0.48	< 0.54	< 0.57	< 0.77
EE	< 0.11	< 0.36	< 0.41	< 0.46	< 0.49	< 0.66
FF	< 0.10	< 0.33	< 0.38	< 0.43	< 0.46	< 0.61
GG	< 0.13	< 0.42	< 0.48	< 0.54	< 0.57	< 0.77
NJDEP Residential Soil Clean- Up Value	0.9	9	0.9 or MDL	0.9 of MDL	0.66 or MDL	0.66 or MDL

Table 12 Saliva/Gastric/Intestinal Extracts – PAH Levels

ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Azobenzene
Concentration mg/kg					
New Infill					
A	< 0.12	< 0.67	< 0.42	< 0.26	< 1.9
E	< 0.13	< 0.68	< 0.43	< 0.27	< 1.9
G	< 0.15	< 0.80	< 0.50	< 0.32	< 2.3
I	< 0.17	< 0.89	< 0.56	< 0.35	< 2.5
New Fiber					
2	< 0.01	< 0.04	< 0.02	< 0.02	< 0.11
3	< 0.01	< 0.03	< 0.02	< 0.01	< 0.10
4	< 0.00	< 0.03	< 0.02	< 0.01	< 0.07
5	< 0.00	< 0.02	< 0.01	< 0.01	< 0.05
6	< 0.01	< 0.04	< 0.02	< 0.02	< 0.11
7	< 0.01	< 0.05	< 0.03	< 0.02	< 0.13
8	< 0.01	< 0.07	< 0.04	< 0.03	< 0.20
Field Infill					
AA	< 0.14	< 0.75	< 0.47	< 0.30	< 2.1
BB	< 0.15	< 0.80	< 0.50	< 0.32	< 2.3
CC	< 0.12	< 0.65	< 0.41	< 0.26	< 1.9
DD	< 0.14	< 0.78	< 0.49	< 0.31	< 2.2
EE	< 0.14	< 0.74	< 0.47	< 0.29	< 2.1
FF	< 0.13	< 0.69	< 0.43	< 0.27	< 2.0
GG	< 0.13	< 0.71	< 0.45	< 0.28	< 2.0
NJDEP					
Residential Soil Clean- Up Value	230	Not Listed	3400	2300	Not Listed

Note: the volume difference of each sample type resulted in different detection limits

saliva-gastric-intestinal	208 ml
Sweat	20 ml
Lung	10 ml
Total extract	10 ml

Table 12 (cont.) Saliva/Gastric/Intestinal Extracts – PAH Levels

ID	Phenan- threne	Anthra- cene	Carba- zole	Fluoran- thene	Pyrene	Benzo(a) anthracene
Concentration mg/kg						
New Infill						
A	< 0.39	< 0.31	< 1.4	< 0.46	< 0.39	< 1.3
E	< 0.40	< 0.32	< 1.4	< 0.48	< 0.40	< 1.3
G	< 0.47	< 0.37	< 1.7	< 0.56	< 0.47	< 1.5
I	< 0.52	< 0.42	< 1.9	< 0.62	< 0.52	< 1.7
New Fiber						
2	< 0.02	< 0.02	< 0.08	< 0.03	< 0.02	< 0.07
3	< 0.02	< 0.02	< 0.07	< 0.02	< 0.02	< 0.07
4	< 0.01	< 0.01	< 0.05	< 0.02	< 0.01	< 0.05
5	< 0.01	< 0.01	< 0.04	< 0.01	< 0.01	< 0.03
6	< 0.02	< 0.02	< 0.08	< 0.03	< 0.02	< 0.07
7	< 0.03	< 0.02	< 0.10	< 0.03	< 0.03	< 0.09
8	< 0.04	< 0.03	< 0.15	< 0.05	< 0.04	< 0.13
Field Infill						
AA	< 0.43	< 0.35	< 1.6	< 0.52	< 0.43	< 1.4
BB	< 0.47	< 0.37	< 1.7	< 0.56	< 0.47	< 1.5
CC	< 0.38	< 0.30	< 1.4	< 0.45	< 0.38	< 1.2
DD	< 0.45	< 0.36	< 1.6	< 0.54	< 0.45	< 1.5
EE	< 0.43	< 0.35	< 1.6	< 0.52	< 0.43	< 1.4
FF	< 0.40	< 0.32	< 1.4	< 0.48	< 0.40	< 1.3
GG	< 0.41	< 0.33	< 1.5	< 0.50	< 0.41	< 1.3
NJDEP Residential Soil Clean- Up Value	Not Listed	Not Listed	10000	2300	Not Listed	0.9

Table 12 (cont.) Saliva/Gastric/Intestinal Extracts – PAH Levels

ID	Chry- sene	Benzo[b] fluoranthene	Benzo[k] fluoranthene	Benzo[a] pyrene	Dibenzo[a,h] anthracene
Concentration mg/kg					
New Infill					
A	< 4.1	< 4.8	< 5.3	< 5.7	< 7.6
E	< 4.2	< 4.9	< 5.5	< 5.8	< 7.8
G	< 5.0	< 5.7	< 6.4	< 6.9	< 9.2
I	< 5.6	< 6.4	< 7.2	< 7.6	< 10
New Fiber					
2	< 0.24	< 0.28	< 0.31	< 0.33	< 0.45
3	< 0.22	< 0.25	< 0.28	< 0.30	< 0.40
4	< 0.16	< 0.18	< 0.20	< 0.22	< 0.29
5	< 0.11	< 0.12	< 0.14	< 0.14	< 0.19
6	< 0.25	< 0.28	< 0.32	< 0.34	< 0.45
7	< 0.29	< 0.34	< 0.38	< 0.40	< 0.54
8	< 0.44	< 0.50	< 0.57	< 0.60	< 0.80
Field Infill					
AA	< 4.7	< 5.4	< 6.0	< 6.4	< 8.6
BB	< 5.0	< 5.7	< 6.4	< 6.8	< 9.1
CC	< 4.1	< 4.7	< 5.2	< 5.6	< 7.4
DD	< 4.8	< 5.6	< 6.2	< 6.7	< 8.9
EE	< 4.6	< 5.3	< 6.0	< 6.4	< 8.5
FF	< 4.3	< 4.9	< 5.5	< 5.9	< 7.8
GG	< 4.4	< 5.1	< 5.7	< 6.1	< 8.1
NJDEP Residential Soil Clean- Up Value					
	9	0.9 or MDL	0.9 of MDL	0.66 or MDL	0.66 or MDL

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ID	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Azobenzene
Concentration mg/kg					
Unused Infill					
A	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12
B	< 0.01	2.13	< 0.03	< 0.02	< 0.12
C	< 0.01	2.48	< 0.03	< 0.02	< 0.12
D	0.27	< 0.04	< 0.03	< 0.02	< 0.12
E	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12
F	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12
G	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12
H	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12
I	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12
Unused Fiber					
1	< 0.00	< 0.02	< 0.01	< 0.01	< 0.06
2	< 0.00	< 0.01	< 0.01	< 0.01	< 0.04
3	< 0.01	< 0.03	< 0.02	< 0.01	< 0.08
4	< 0.00	< 0.02	< 0.01	< 0.01	< 0.05
5	< 0.00	< 0.01	< 0.01	< 0.01	< 0.04
6	< 0.01	< 0.04	< 0.02	< 0.01	< 0.11
7	< 0.00	1.30	< 0.02	< 0.01	< 0.07
8	< 0.01	< 0.03	< 0.02	< 0.01	< 0.08
Field Infill					
AA	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12
BB	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12
CC	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12
DD	< 0.01	0.69	< 0.03	< 0.02	< 0.12
EE	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12
FF	< 0.01	0.37	< 0.03	< 0.02	< 0.12
GG	< 0.01	< 0.04	< 0.03	< 0.02	< 0.12

above detection limit values

Note: the volume difference of each sample type explains the difference in reported values	
saliva-gastric-intestinal	208 ml
Sweat	20 ml
Lung	10 ml
Total extract	10 ml

NJDEP	2				
Residential Soil	3	Not Listed	3400	2300	Not Listed
Clean- Up Value	0				

Table 13 cont. Total Extracts – PAH Levels

ID	Phenanthrene	Anthracene	Carbazole	Fluoranthene	Pyrene
Concentration mg/kg					
Unused Infill					
A	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
B	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
C	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
D	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
E	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
F	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
G	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
H	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
I	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
Unused Fiber					
1	< 0.01	< 0.01	< 0.04	< 0.01	< 0.01
2	< 0.01	< 0.01	< 0.03	< 0.01	< 0.01
3	< 0.02	< 0.01	< 0.06	< 0.02	< 0.02
4	< 0.01	< 0.01	< 0.03	< 0.01	< 0.01
5	< 0.01	< 0.01	< 0.03	< 0.01	< 0.01
6	< 0.02	< 0.02	< 0.08	< 0.03	< 0.02
7	< 0.01	< 0.01	< 0.05	< 0.02	< 0.01
8	< 0.02	< 0.01	< 0.06	< 0.02	< 0.02
Field Infill					
AA	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
BB	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
CC	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
DD	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
EE	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
FF	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
GG	< 0.02	< 0.02	< 0.09	< 0.03	< 0.02
NJDEP Residential Soil Clean- Up Value	Not Listed	Not Listed	10000	2300	Not Listed

Table 13 cont. Total Extracts – PAH Levels

ID	Benzo(a) anthracene	Chrysene	Benzo[b] fluoranthene	Benzo[k] fluoranthene	Benzo[a]pyrene	Dibenzo[a,h] anthracene
Concentration mg/kg						
Unused Infill						
A	< 0.08	< 0.27	< 0.31	<0.34	<0.37	<0.49
B	< 0.08	< 0.25	< 0.29	<0.33	<0.35	<0.47
C	< 0.08	< 0.26	< 0.30	<0.34	<0.36	<0.48
D	< 0.08	< 0.25	< 0.29	<0.33	<0.35	<0.47
E	< 0.08	< 0.26	< 0.30	<0.34	<0.36	<0.48
F	< 0.08	< 0.26	< 0.30	<0.34	<0.36	<0.48
G	< 0.08	< 0.26	< 0.30	<0.34	<0.36	<0.48
H	< 0.08	< 0.26	< 0.29	<0.33	<0.35	<0.47
I	< 0.08	< 0.27	< 0.30	<0.34	<0.36	<0.49
Unused Fiber						
1	< 0.04	< 0.13	< 0.15	<0.17	<0.18	<0.24
2	< 0.03	< 0.09	< 0.10	<0.11	<0.12	<0.16
3	< 0.05	< 0.18	< 0.20	<0.23	<0.24	<0.33
4	< 0.03	< 0.10	< 0.11	<0.13	<0.14	<0.18
5	< 0.02	< 0.08	< 0.09	<0.10	<0.11	<0.14
6	< 0.07	< 0.24	< 0.27	<0.30	<0.32	<0.43
7	< 0.05	< 0.15	< 0.17	<0.20	<0.21	<0.28
8	< 0.05	< 0.18	< 0.21	<0.23	<0.25	<0.33
Field Infill						
AA	< 0.08	< 0.26	< 0.30	<0.34	<0.36	<0.48
BB	< 0.08	< 0.26	< 0.30	<0.33	<0.36	<0.48
CC	< 0.08	< 0.26	< 0.30	<0.34	<0.36	<0.48
DD	< 0.08	< 0.25	< 0.29	<0.33	<0.35	<0.47
EE	< 0.08	< 0.26	< 0.30	<0.34	<0.36	<0.48
FF	< 0.08	< 0.26	< 0.30	<0.34	<0.36	<0.48
GG	< 0.08	< 0.25	< 0.29	<0.33	<0.35	<0.47
NJDEP Residential Soil Clean- Up Value	0.9	9	0.9 or MDL	0.9 of MDL	0.66 or MDL	0.66 or MDL

Conclusions:

A comprehensive study was conducted to examine what could be extracted from infill and turf products that have been placed on fields, or are commonly available for purchase and installation. The extraction procedures included acid extraction for metal and high temperature volatilization for semi-volatile and volatile organic compounds as well as artificial sweat, lung and digestive fluids for metals and organic compounds. The protocols were followed in order to fill a major data gap identified by the 2008 turf/infill workshop, NYC, NY, that bioaccessibility studies were needed for the inhalation, dermal and ingestion routes of entry into the body for both organic and inorganic materials. The results obtained for metals, PAHs and semi-volatile compounds found all classes of materials to be at very low concentrations, and as a result for all compounds listed in the main report there would be *de minimus* exposures and risk among anyone using fields with the materials listed in Table 3 with the exception of lead in a single new turf material. It is therefore prudent to reemphasize the need to avoid lead-based pigments in these materials as coloring agents. There were a large number and variety of organic materials identified that were again at very low concentrations listed in the Appendix, but no hazard data are currently available for those materials. However, at this time we are not recommending a full scale study of the hazards posed by such materials due to the low concentrations of the metals and organic compounds which are regulated in the biofluid, and a formal risk assessment was unnecessary for all sample types used in this study. In the future, the types of bioaccessibility studies conducted as part of these experiments should be completed for all new turf/infill products.

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TOTAL EXTRACT**COMPOUND NAME****UNUSED INFILL****Sample A**

(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol
.alpha.-Methylfentanyl
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
10,18-Bisnorabieta-8,11,13-triene
17-(2-Hydroxy-1-oxoethyl)-3-salicyloylhydrazono-4-estrene
1-Heptatriacotanol
1-Hexene, 3,5-dimethyl-
1H-Indene, 2,3-dihydro-1,1,3-trimethyl-3-phenyl-
2-(3,7-Dimethyl-octa-2,6-dienylideneamino)-4,8-dimethylnona-3,7-dienenitrile
2(3H)-Naphthalenone, 4,4a,5,6,7,8-hexahydro-
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2,5-Octadecadiynoic acid, methyl ester
2,7-Imino-3,6-methanonaphthalene, decahydro-
2,7-Methanonaphthalen-3-amine, 1,2,3,4,4a,7,8,8a-octahydro-, (2π3π4απ7π8απ-
2-Dodecenal
2H-2,4a-Methanonaphthalene, 1,3,4,5,6,7-hexahydro-1,1,5,5-tetramethyl-, (2S)-
2-Nonadecanone 2,4-dinitrophenylhydrazine
3-Cyclohexene-1-methanol, ππ-trimethyl-
3-Oxatricyclo[20.8.0.0(7,16)]trianta-1(22),7(16),9,13,23,29-hexaene
4-(3-Oxocyclohexyl)butyric acid, methyl ester
4-Amino-2-(p-tolyl)-5H-(1)benzopyrano(4,3-d)pyrimidin-5-one
4-Picolylamine, N,N-dinonyl-
5,6,6-Trimethyl-5-(3-oxobut-1-enyl)-1-oxaspiro[2.5]octan-4-one
5-Undecene, 9-methyl-, (Z)-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
8-Hexadecenal, 14-methyl-, (Z)-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
Benzene, (1-butyloctyl)-
Benzene, (1-propylnonyl)-
Benzo[b]thiophene, 2-propyl-
Benzoic acid 3-methyl-4-(1,3,3,3-tetrafluoro-2-methoxycarbonyl-propenylsulfanyl)-phenyl ester
Benzothiazole, 2-(methylthio)-
Benzothiazole, 2-(methylthio)-
Bicyclo[4.1.0]heptane, 7-bicyclo[4.1.0]hept-7-ylidene-
Calarene epoxide
Caryophyllene
Cedren-13-ol, 8-
Chloroacetic acid, octyl ester
cis-1-Chloro-9-octadecene
Curan-17-oic acid, 19,20-dihydroxy-, methyl ester, (19S)-
Cyclohexane, 1-(cyclohexylmethyl)-2-methyl-,
Cyclopentanone, 2-acetyl-3,3-dimethyl-2-(3-methylbutyl)-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Falcarinol

Hexahydro-5.lambda.(6)-thieno[3,4-b]pyrrol-2-one, 1-(1,5-dimethyl-3-oxo-2-phenyl-2,3-dihydro-1H-pyrazol-4-yl)-5,5-dioxo-
Hexasiloxane, tetradecamethyl-

2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-Biphenylamine, 3-methyl-
2-Butenal, 2-methyl-4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-

2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl-4a,7a-epoxy-5H-cyclopenta[a]cyclopropa[f]cycloundecen-11-yl ester, [1aR-[1aR*,2R*,3S*,4aR*,6S*,7S*,7aS*,8E,10R*,11R*(E),11aS*]]-

2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl-4a,7a-epoxy-5H-cyclopenta[a]cyclopropa[f]cycloundecen-11-yl ester, [1aR-[1aR*,2R*,3S*,4aR*,6S*,7S*,7aS*,8E,10R*,11R*(E),11aS*]]-

2-Isopropylpiperazine

3,5-Bis(morpholino N-methyl), 4-oxo, 2,2,6,6-tetramethylpiperidine-1-oxyl

3,5-Bis(morpholino N-methyl), 4-oxo, 2,2,6,6-tetramethylpiperidine-1-oxyl

3,5-Di(2-thienyl)pyridine

3,9 π 14,15-Diepoxy pregn-16-en-20-one, 3,11 π 18-triacetoxy-

3,9 π 14,15-Diepoxy pregn-16-en-20-one, 3,11 π 18-triacetoxy-

3-Cyclohexene-1-methanamine, $\pi\pi$ 4-trimethyl-

3H-Cyclodeca[b]furan-2-one, 4,9-dihydroxy-6-methyl-3,10-dimethylene-3a,4,7,8,9,10,11,11a-octahydro-

3H-Cyclodeca[b]furan-2-one, 4,9-dihydroxy-6-methyl-3,10-dimethylene-3a,4,7,8,9,10,11,11a-octahydro-

3-Oxatricyclo[20.8.0.0(7,16)]trianta-1(22),7(16),9,13,23,29-hexaene

3-Oxo-10(14)-epoxyguai-11(13)-en-6,12-olide

4-(4-Methylphenyl)pyridine

4-(4-Methylphenyl)pyridine

4-(4-Methylphenyl)pyridine

4-(p-Methoxyphenyl)-2-(4-phenyl-2-pyridyl)-6-(2-pyridyl)-pyridine

4,25-Secoobscurinervan-4-ol, 15,16-dimethoxy-22-methyl-, 21-acetate, (4 π 22 π -

4,4-Ethylenedioxy-1-pentylamine

4,6,12,14-Tetramethyl-1,9-dioxa-4,6,12,14-tetraazahexadecane-5,13-dione

5-(7a-Isopropenyl-4,5-dimethyl-octahydroinden-4-yl)-3-methyl-pent-2-enal

5-(7a-Isopropenyl-4,5-dimethyl-octahydroinden-4-yl)-3-methyl-pent-2-enal

5-(7a-Isopropenyl-4,5-dimethyl-octahydroinden-4-yl)-3-methyl-pent-2-enal

5-Benzofuranacetic acid, 6-ethenyl-2,4,5,6,7,7a-hexahydro-3,6-dimethyl- π methylene-2-oxo-, methyl ester

Phorbol

6-(1-Hydroxymethylvinyl)-4,8a-dimethyl-3,5,6,7,8,8a-hexahydro-1H-naphthalen-2-one

6,9,12,15-Docosatetraenoic acid, methyl ester

6,9-Octadecadienoic acid, methyl ester

6-Chrysenamine

7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione

7-Hydroxy-6,9a-dimethyl-3-methylene-decahydro-azuleno[4,5-b]furan-2,9-dione

9,10-Secocholesta-5,7,10(19)-triene-3,25,26-triol, (3 π 5Z,7E)-

9,10-Secocholesta-5,7,10(19)-triene-3,25,26-triol, (3 π 5Z,7E)-

9,10-Secocholesta-5,7,10(19)-triene-3,25,26-triol, (3 π 5Z,7E)-

9,10-Secocholesta-5,7,10(19)-triene-3,25,26-triol, (3 π 5Z,7E)-

9,19-Cycloergost-24(28)-en-3-ol, 4,14-dimethyl-, (3 π 4 π 5 π -

9,19-Cycloergost-24(28)-en-3-ol, 4,14-dimethyl-, (3 π 4 π 5 π -

9,9'-Biphenanthrene, octacosahydro-

9,9'-Biphenanthrene, octacosahydro-

Acetamide, 2-(9-allyl-9H-1,3,4,9-tetraazafluoren-2-ylsulfanyl)-N-(thiophen-2-yl)methyl-

Acetic acid, 10-hydroxy-12a-methyl-7-oxo-1,2,3,3a,3b,4,5,7,8,9,10,11,12,12a-tetradecahydro-benzo[c]cyclopenta[h]azulen-1-yl ester

Acetic acid, 10-hydroxy-12a-methyl-7-oxo-1,2,3,3a,3b,4,5,7,8,9,10,11,12,12a-tetradecahydro-benzo[c]cyclopenta[h]azulen-1-yl ester

Acetic acid, 10-hydroxy-12a-methyl-7-oxo-1,2,3,3a,3b,4,5,7,8,9,10,11,12,12a-tetradecahydro-benzo[c]cyclopenta[h]azulen-1-yl ester

Androsta-1,4-dien-3-one, 17-hydroxy-17-methyl-, (17 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -

Anthiaergostan-5,7,9,22-tetraen-14-ol-15-one

Azafrin

Benzene, 1,1'-(1,1,2,2-tetramethyl-1,2-ethanediyl)bis-

Benzene, 1,1'-(1,2-diethyl-1,2-ethanediyl)bis[4-methoxy-

Bicyclo[4.4.0]dec-2-ene-4-ol, 2-methyl-9-(prop-1-en-3-ol-2-yl)-

Bicyclo[4.4.0]dec-2-ene-4-ol, 2-methyl-9-(prop-1-en-3-ol-2-yl)-

Cholest-2-eno[2,3-b]indole, 6'-methoxy-

Cholestan-3-ol, 2-methylene-, (3 π 5 π -

Cholestan-3-ol, 2-methylene-, (3 π 5 π -

Cholestan-3-ol, 2-methylene-, (3 π 5 π -

Cholestan-3-ol, 2-methylene-, (3 π 5 π -

Cholestan-3-ol, 2-methylene-, (3 π 5 π -

Cholestan-3-ol, 2-methylene-, (3 π 5 π -

Cholestan-3-ol, 2-methylene-, (3 π 5 π -

Cholestan-3-ol, 2-methylene-, (3 π 5 π -

Cholestan-3-ol, 2-methylene-, (3 π 5 π -

Cholestan-3-ol, 2-methylene-, (3 π 5 π -
Corynan-17-ol, 18,19-didehydro-10-methoxy-
Curan-17-oic acid, 19,20-dihydroxy-, methyl ester, (19S)-
Cyclodecacyclotetradecene, 14,15-didehydro-1,4,5,8,9,10,11,12,13,16,17,18,19,20-tetradecahydro-
Cyclohex-2-enone, 3-[2-(2,5-dimethyl-1H-indol-3-yl)ethylamino]-2-pentanoyl-
Cyclopentanone, 2-(1-methylpropyl)-
Cyclopropa[c,d]pentalene-1,3-dione, hexahydro-4-(2-methyl-2-propenyl)-2,2,4-trimethyl-
Cyclopropa[c,d]pentalene-1,3-dione, hexahydro-4-(2-methyl-2-propenyl)-2,2,4-trimethyl-
Dasycarpidol
Diepicedrene-1-oxide
Dodecanedioic acid, bis(tert-butyldimethylsilyl) ester
E,E,Z-1,3,12-Nonadecatriene-5,14-diol
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fluoren-9-ol, 3,6-dimethoxy-9-(2-phenylethenyl)-
Formamide, N,N-dibutyl-
Furan-2,4-dicarbonitrile, 2,3-dihydro-5-amino-2-phenyl-
Gitoxigenin
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Homosalate
Hydroperoxide, 1-methyl-1-phenylethyl
Longifolenaldehyde
Longipinocarveol, trans-
Longipinocarveol, trans-
Longipinocarveol, trans-
Longipinocarveol, trans-
Longipinocarveol, trans-
Morphinan-4,5-diol-6-one, 1-bromo-
Morphinan-4,5-epoxy-3,6-di-ol, 6-[7-nitrobenzofurazan-4-yl]amino-
Morphinan-4,5-epoxy-3,6-di-ol, 6-[7-nitrobenzofurazan-4-yl]amino-
Morphinan-4,5-epoxy-3,6-di-ol, 6-[7-nitrobenzofurazan-4-yl]amino-
Murolan-3,9(11)-diene-10-peroxy
N,N'-Bis(Carbobenzyloxy)-lysine methyl(ester)
N,N-Dimethyl-2-cyclohexyloxyethylamine
Octasiloxane, 1,1,3,3,5,5,7,7,9,9,11,11,13,13,15,15-hexadecamethyl-

Perhydroindene-4-carboxylic acid, 6-acetoxy-2,3-epoxy-1,1-epoxymethyl-3a-hydroxy-5-isopropenyl-7a-methyl-7-oxo-, methyl ester
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Hexestrol
Phorbol

7,10,13-Eicosatrienoic acid, methyl ester
7,10,13-Eicosatrienoic acid, methyl ester
7,10,13-Eicosatrienoic acid, methyl ester
7,10,13-Eicosatrienoic acid, methyl ester
7,10,13-Eicosatrienoic acid, methyl ester
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
8-Hexadecenal, 14-methyl-, (Z)-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
9,9'-Biphenanthrene, octacosahydro-
Acetic acid, 4,4a,6b,8a,11,11,12b,14a-octamethyl-3-oxodocosahdropicen-2-yl ester
Acetic acid, 4,4a,6b,8a,11,11,12b,14a-octamethyl-3-oxodocosahdropicen-2-yl ester
Acetic acid, trichloro-, 3-phenylpropyl
Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
Androstan-2-one, (5.alpha.)-
Androstane, 17,18-diiodo-, (5 π 17 π -
Androstane, 17,18-diiodo-, (5 π 17 π -
Aziridine, 2-methyl-2-(2,2,4-trimethyl-4-phenylpentyl)-
Azuleno[4,5-b]furan-2,9-dione, 9a-[(acetyloxy)methyl]decahydro-6-methyl-3-methylene-, [3as-(3a π 6 π 8a π 9a π 9b π)-
Benzenamine, 4-chloro-2,5-dimethoxy-
Benzenamine, 5-chloro-2,4-dimethoxy-
Benzenamine, 5-chloro-2,4-dimethoxy-
Benzene, (1-bromoethyl)-
Benzene, (1-methyldecyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylnonyl)-
Benzene, (1-pentylheptyl)-
Benzene, (1-propyloctyl)-
Benzene, 1,1'-(1,2-dimethyl-1,2-ethanediyl)bis-
Betulin
B-Homo-A-norcholestan-6-one, (5.alpha.)-
Chloroacetic acid, octyl ester

Chloroacetic acid, octyl ester
cis-1-Chloro-9-octadecene
Cyclohexanol, 5-methyl-2-(1-methyl-1-phenylethyl)-
Cyclopent-2-enone, 5-allyl-3-benzylamino-2,5-dichloro-4,4-dimethoxy-
Cyclopropa[d]naphthalen-3-one, octahydro-2,4a,8,8-tetramethyl-, oxime
Ergost-22-en-3-ol, (3 π 5 π 22E,24R)-
Ergost-22-en-3-ol, (3 π 5 π 22E,24R)-
Ergost-22-en-3-ol, (3 π 5 π 22E,24R)-
Ergost-22-en-3-ol, (3 π 5 π 22E,24R)-
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Fenretinide
Heptylcyclohexane
Hexadecahydrocyclopenta[a]phenanthrene-3,17-diol, 16-(1,3-dimethyl-1H-pyrazol-4-ylmethylene)-10,13-dimethyl-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexasiloxane, tetradecamethyl-
Isosteviol
Isosteviol methyl ester
Isosteviol methyl ester
Isosteviol methyl ester
Isosteviol methyl ester
Isosteviol methyl ester
Isosteviol methyl ester
Kauran-18-oic acid, 16-hydroxy-, (4 π -
Lup-20(29)-en-3-ol, acetate, (3 β .)-
Morphinan-4,5-epoxy-3,6-di-ol, 6-[7-nitrobenzofurazan-4-yl]amino-
N,N'-Bis(Carbobenzyloxy)-lysine methyl(ester)
Naphthalene, 1,2,3,4-tetrahydro-1,5-dimethyl-
Naphthalene, 1,2,3,4-tetrahydro-2,5,8-trimethyl-
N-Chloro-2-methyl-2-phenylaziridine
Nonanoic acid, 9-(3-hexenyliidene-cyclopropylidene)-, 2-hydroxy-1-(hydroxymethyl)ethyl ester, (Z,Z,Z)-
Pentacosane, 13-phenyl-
Phenanthrene, 9-dodecyltetradecahydro-
Phenethylamine, 3-benzyloxy-2-fluoro- π hydroxy-
Phenol, 2,5-bis(1,1-dimethylethyl)-
Phthalic acid, isobutyl tridec-2-yn-1-yl ester
Pregn-20-yn-17-ol, (5 π 17 π -
Pregn-20-yn-17-ol, (5 π 17 π -
Pregn-20-yn-17-ol, (5 π 17 π -
Pregn-20-yn-17-ol, (5 π 17 π -
Pregn-20-yn-17-ol, (5 π 17 π -

Pregn-20-yn-17-ol, (5 π 17 π -
Pregn-20-yn-17-ol, (5 π 17 π -
Pregn-20-yn-17-ol, (5 π 17 π -
Pregn-20-yn-17-ol, (5 π 17 π -
Pregnan-20-one, 3,17-dihydroxy-16-methyl
Pregnan-3-one, (5.alpha.)-
Pregnane-18,20-diol, (5.alpha.)-
Pregnane-18,20-diol, (5.alpha.)-
Pregnane-18,20-diol, (5.alpha.)-
Pregnane-18,20-diol, (5.alpha.)-
Propanoic acid, 2-methyl-, 2-ethyl-3-hydroxyhexyl ester
Quinoline, 6-methyl-2-phenyl-
Resibufogenin
Resibufogenin
Rhodopin
Rhodopin
Rhodopin
Tetracos-2,6,14,18,22-pentaene-10,11-diol, 2,6,10,15,19,23-hexamethyl-
Tetracyclo[5.3.1.1(2,6).1(3,11)]tridecane, 8-chloro-13-hydroxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Trilinolein
Ursodeoxycholic acid

Sample D

(+)-Camphor-10-sulfonyl chloride
(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol
 π d-Xylopyranoside, methyl-2,3,4-tris-O-[9-borabicyclo[3.3.1]non-9-yl]-
 π d-Xylopyranoside, methyl-2,3,4-tris-O-[9-borabicyclo[3.3.1]non-9-yl]-
.delta.-Neoclovene
.psi.,.psi.-Carotene, 7,7',8,8',11,11',12,12',15,15'-decahydro-
.psi.,.psi.-Carotene, 7,7',8,8',11,11',12,12',15,15'-decahydro-
.psi.,.psi.-Carotene, 7,7',8,8',11,11',12,12',15,15'-decahydro-
.psi.,.psi.-Carotene, 7,7',8,8',11,11',12,12',15,15'-decahydro-
.psi.,.psi.-Carotene, 7,7',8,8',11,11',12,12',15,15'-decahydro-
.psi.,.psi.-Carotene, 7,7',8,8',11,11',12,12',15,15'-decahydro-
1,2-Nonadecanediol
1,3,5,2-Oxaazoniaazaboratin, 2,2-diethyl-1,2,5,6-tetrahydro-3,4-(1',4'-butanediy)-6,5-(butyliden-4"-yl)-
1,4-Methanophthalazine, 1,4,4a,5,6,7,8,8a-octahydro-1,4,9,9-tetramethyl-, (1 π 4 π 4a π 8a π -
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
10-Methyl-E-11-tridecen-1-ol propionate

5-Alpha-androstane-3,17-dione 17-monooxime
5-Hydroxymethyl-1,1,4a-trimethyl-6-methylenedecahydronaphthalen-2-ol
5-Undecene, 9-methyl-, (Z)-
7,10,13-Eicosatrienoic acid, methyl ester
7,10,13-Eicosatrienoic acid, methyl ester
7,10,13-Eicosatrienoic acid, methyl ester
7,8-Epoxylostan-11-ol, 3-acetoxy-
7,8-Epoxylostan-11-ol, 3-acetoxy-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7-Heptadecene, 17-chloro-
7-Heptadecene, 17-chloro-
7-Heptadecene, 17-chloro-
7-Heptadecene, 17-chloro-
8,14-Seco-3,19-epoxyandrostane-8,14-dione, 17-acetoxy-3-methoxy-4,4-dimethyl-
8-Hexadecenal, 14-methyl-, (Z)-
8-Hexadecenal, 14-methyl-, (Z)-
9,12,15-Octadecatrienoic acid, 2-phenyl-1,3-dioxan-2-yl ester, (Z,Z)-
9,12,15-Octadecatrienoic acid, 2-phenyl-1,3-dioxan-2-yl ester, (Z,Z)-
9,12,15-Octadecatrienoic acid, 2-phenyl-1,3-dioxan-2-yl ester, (Z,Z)-
9-Amino-1-methyl-3,6-diazahomoadamantane
9-Hexadecenoic acid, 9-octadecenyl ester, (Z,Z)-
9-Hexadecenoic acid, 9-octadecenyl ester, (Z,Z)-
9-Hexadecenoic acid, 9-octadecenyl ester, (Z,Z)-
9-Hexadecenoic acid, 9-octadecenyl ester, (Z,Z)-
9-Hexadecenoic acid, 9-octadecenyl ester, (Z,Z)-
9-Hexadecenoic acid, 9-octadecenyl ester, (Z,Z)-
9-Hexadecenoic acid, 9-octadecenyl ester, (Z,Z)-
9-Hexadecenoic acid, 9-octadecenyl ester, (Z,Z)-
9-Hexadecenoic acid, 9-octadecenyl ester, (Z,Z)-
9-Hexadecenoic acid, 9-octadecenyl ester, (Z,Z)-
9-Octadecene, 1,1'-[1,2-ethanediylbis(oxy)]bis-, (Z,Z)-
9-Octadecene, 1,1'-[1,2-ethanediylbis(oxy)]bis-, (Z,Z)-
9-Octadecene, 1,1'-[1,2-ethanediylbis(oxy)]bis-, (Z,Z)-
9-Octadecene, 1,1'-[1,2-ethanediylbis(oxy)]bis-, (Z,Z)-
9-Octadecene, 1,1'-[1,2-ethanediylbis(oxy)]bis-, (Z,Z)-
9-Octadecene, 1,1'-[1,2-ethanediylbis(oxy)]bis-, (Z,Z)-
9-Octadecene, 1,1'-[1,2-ethanediylbis(oxy)]bis-, (Z,Z)-

Acetic acid, 10-hydroxy-12a-methyl-7-oxo-1,2,3,3a,3b,4,5,7,8,9,10,11,12,12a-tetradecahydro-benzo[c]cyclopenta[h]azulen-1-yl ester
Acetic acid, 4-(3-diazo-2-oxopropyl)-, phenyl ester
Adamantane, 1-thiocyanatomethyl-
Allopregnane-7 π 11 π diol-3,20-dione
Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
Androstan-9-thiocyanato-3,11,17-trione
Androstane-3,7-dione, 17-(acetyloxy)-, (5 π 17 π -
As-Indacene, dodecahydro-4-(1-octylonyl)-
Benzaldehyde, 2,5-bis[(trimethylsilyloxy)]-
Benzene, (1-methylnonadecyl)-
Benzene, 1,1'-[3-(2-phenylethylidene)-1,5-pentanediy]]bis-
Benzenethiol, 4-(1,1-dimethylethyl)-2-methyl-
Benzestrol
Benzoylamide, 2-amino-5-hydroxy-N-[2-chloro-3-pyridyl]-
Bicyclo[10.1.0]trideca-4,8-diene-13-carboxamide, N-(2,6-dichlorophenyl)-
Butylaldehyde, 4-benzyloxy-4-[2,2,-dimethyl-4-dioxolanyl]-

Milbemycin B, 5-demethoxy-5-one-6,28-anhydro-25-ethyl-4-methyl-13-chloro-oxime
Morphinan-4,5-epoxy-3,6-di-ol, 6-[7-nitrobenzofurazan-4-yl]amino-
Naphthalene, 1,2,3,4-tetrahydro-1,5-dimethyl-
Neronine, 4.beta.,5-dihydro-
Neronine, 4.beta.,5-dihydro-
Neronine, 4.beta.,5-dihydro-
Neronine, 4.beta.,5-dihydro-
Neronine, 4.beta.,5-dihydro-
Neronine, 4.beta.,5-dihydro-
Neronine, 4.beta.,5-dihydro-
Neronine, 4.beta.,5-dihydro-
Neronine, 4.beta.,5-dihydro-
Neronine, 4.beta.,5-dihydro-
Octadecanal, 2-bromo-
Octadecanal, 2-bromo-
Octadecanal, 2-bromo-
Octadecanal, 2-bromo-
Octadecanal, 2-bromo-
Octadecanal, 2-bromo-
Octadecanal, 2-bromo-
Octadecanal, 2-bromo-
Octadecanal, 2-bromo-
Octadecane, 3-ethyl-5-(2-ethylbutyl)-
Oleic Acid
Oleic acid, eicosyl ester
Oleic acid, eicosyl ester
Oxacyclotetradeca-4,11-diyne
Oxiraneoctanoic acid, 3-octyl-, cis-
Oxiraneoctanoic acid, 3-octyl-, cis-
Oxiraneoctanoic acid, 3-octyl-, cis-
Pent-1-yne, 5-benzyloxy-
Perhydrocyclopropa[e]azulene-4,5,6-triol, 1,1,4,6-tetramethyl
Phenol, 2,4,6-tris(1-methylethyl)-
Phenol, 2,6-bis(1,1-dimethylethyl)-4-ethyl-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Hexestrol
Hexestrol
Hexestrol
Phthalic acid, 2,7-dimethyloct-7-en-5-yn-4-yl ethyl ester
Pregnan-20-one, 3,17-dihydroxy-16-methyl-, (3 π 5 π 16 π -
Pregnan-20-one, 5,6-epoxy-3,17-dihydroxy-16-methyl-, (3 π 5 π 6 π 16 π -
Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl)-
Rhodopin
Rhodopin
Rhodopin
Rhodopin
Rhodopin
Rhodopin
Terrein
Tertbutyloxyformamide, N-methyl-N-[4-(1-pyrrolidinyl)-2-butyryl]-

Tetradecane, 2,6,10-trimethyl-
Tetradecanoic acid, 3,3a,4,6a,7,8,9,10,10a,10b-decahydro-3a,10a-dihydroxy-5-(hydroxymethyl)-2,10-dimethyl-3-oxobenz[e]azulen-8-yl ester, [3aR·(3aπ6aπ8π10π10aπ10bπ)]-
Tetrahydroaraucarolone
Tetrahydroaraucarolone
Thieno[2,3-c]pyridine
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[20.8.0.0(7,16)]triacontane, 1(22),7(16)-diepoxy-
Tricyclo[3.2.2.0]nonane-2-carboxylic acid
Trilinolein
Z-(13,14-Epoxy)tetradec-11-en-1-ol acetate
Z-(13,14-Epoxy)tetradec-11-en-1-ol acetate
Z-(13,14-Epoxy)tetradec-11-en-1-ol acetate
Z-(13,14-Epoxy)tetradec-11-en-1-ol acetate
Z,Z-3,15-Octadecadien-1-ol acetate
Z,Z-3,15-Octadecadien-1-ol acetate
Z,Z-3,15-Octadecadien-1-ol acetate
Z,Z-3,15-Octadecadien-1-ol acetate
Z,Z-3,15-Octadecadien-1-ol acetate
Z,Z-4,6-Nonadecadien-1-ol acetate
Z-10-Methyl-11-tetradecen-1-ol propionate
Z-10-Methyl-11-tetradecen-1-ol propionate
Z-10-Methyl-11-tetradecen-1-ol propionate

Sample E

(+)-Camphor-10-sulfonyl chloride
(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol
1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl ester
1,3-Dioxolane-4-methanol, 2-pentadecyl-, acetate, cis-
1-[2-O-BENZOYL-3,5-O-DIBENZYL- α -D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
13-Heptadecyn-1-ol
1-Heptatriacotanol
2,3-5,6-Bis(1,5-octanediyl)-2,5-dibora-1,4-dioxane
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2,5-Octadecadiynoic acid, methyl ester

2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl-4a,7a-epoxy-5H-cyclopenta[a]cyclopropa[f]cycloundecen-11-yl ester, [1aR-[1aR*,2R*,3S*,4aR*,6S*,7S*,7aS*,8E,10R*,11R*(E),11aS*]]-
2-Butenoic acid, hexyl ester
2-Decen-1-ol, (E)-
2-Dodecenal
2-Dodecenal
2-Dodecenal, (E)-
2-Oxepanone, 7-hexyl-
2-Propanone, 1,3-diphenyl-
2-Tridecenal, (E)-
3,5-di-tert-Butyl-4-hydroxybenzaldehyde
3-Hexene, 1-[1-ethoxyethoxy]-, (E)-
4-(2-Methyl-3-oxocyclohexyl)butyric acid
4,2,8-Ethanylylidene-2H-1-benzopyran, octahydro-2-methyl-
4-Octadecenal
5-Phenylvaleric acid

7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7,9-Di-tertbutyl-1-oxaspiro[4,5]deca-6,9-dien-8-one
7-Acetyl-6-ethyl-1,1,4,4-tetramethyltetralin
8a-Methyldecalin-1,8-diol, diacetate
9,12-Octadecadienoyl chloride, (Z,Z)-
9-Octadecenoic acid, (2-phenyl-1,3-dioxolan-4-yl)methyl ester, cis-
Benzaldehyde, 2,5-bis[(trimethylsilyl)oxy]-
Benzene, (1-methyldecyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylnonadecyl)-
Benzene, (1-methylnonyl)-
Benzene, (2-nitropropyl)-
Benzene, [3-(2-cyclohexylethyl)-6-cyclopentylhexyl]-
Benzene, 1-benzyloxy-5-diethylamino-2,4-dinitro-
Benzenebutanenitrile
Benzenepentanol
Benzenepropanoic acid, 10-oxotricyclo[4.2.1.1(2,5)]deca-3,7-dienyl ester
Benzothiazole
Carnegine
Chloroacetic acid, octyl ester
Cholestan-7-amine, N,N-dimethyl-
Curan-17-oic acid, 19,20-dihydroxy-, methyl ester, (19S)-
Ethanedioic acid, bis(1-methylpropyl) ester
Ethaneperoxy acid, 1-cyano-1-[2-(2-phenyl-1,3-dioxolan-2-yl)ethyl]pentyl ester
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Hexadecane, 1,1-bis(dodecyloxy)-
Homomenthyl salicylate
Indan-1,2-dione, 4-methyl-
N-Chloro-2-methyl-2-phenylaziridine
Hexestrol
p-Toluic acid, 3-phenylpropyl ester
p-Toluic acid, 3-phenylpropyl ester
Tetradecane, 1-chloro-
Z-1,9-Hexadecadiene

Sample F

1,4-Benzenediol, 2,6-bis(1,1-dimethylethyl)-
10-Methyl-E-11-tridecen-1-ol propionate
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2-Oxepanone, 7-hexyl-
3,5-Bis(morpholino N-methyl), 4-oxo, 2,2,6,6-tetramethylpiperidine-1-oxyl
4,2,8-Ethanylylidene-2H-1-benzopyran, octahydro-2-methyl-
4,4-Ethylenedioxy-1-pentylamine
5-Phenylvaleric acid
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7-Acetyl-6-ethyl-1,1,4,4-tetramethyltetralin
Benzaldehyde, 2,5-bis[(trimethylsilyl)oxy]-
Benzene, (1,2-dimethylpropyl)-
Benzene, (1-bromoethyl)-
Benzene, (1-butyloctyl)-
Benzene, (1-butyloctyl)-
Benzene, (1-methyldecyl)-

Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzenebutanenitrile
Benzenebutanenitrile
Benzenethiol, 4-(1,1-dimethylethyl)-2-methyl-
Butylated Hydroxytoluene
Curan-17-oic acid, 19,20-dihydroxy-, methyl ester, (19S)-
Hexadecane, 1,1-bis(dodecyloxy)-
Homomenthyl salicylate
Indan-1,2-dione, 4-methyl-
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
Phthalic acid, cyclobutyl hexyl ester
Thiophene, 2-methyl-5-propyl-
Trimethylboroxine

Sample G

.gamma.-Himachalene
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1H-Benzocycloheptene, 2,4a,5,6,7,8-hexahydro-3,5,5,9-tetramethyl-, (R)-
2(1H)-Benzocyclooctenone, decahydro-10a-methyl-, trans-
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2-Chloroethyl linoleate
3-Isopropylidene-tricyclo[4.3.1.1(2,5)]undecan-10-one
3-Isopropyl-tricyclo[4.3.1.1(2,5)]undec-3-en-10-one
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-
4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-
5-Isopropylidene-6-methyldeca-3,6,9-trien-2-one
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
8-Isopropenyl-1,3,3,7-tetramethyl-bicyclo[5.1.0]oct-5-en-2-one
9,10-Secochola-5,7,10(19)-trien-24-al, 3-hydroxy-, (3π5Z,7E)-
9-Heptadecene-4,6-diyn-8-ol, (Z)-
Benzaldehyde, 2,5-bis[(trimethylsilyl)oxy]-
Benzene, 1,3,5-trichloro-2-methoxy-
Benzene, 1-methyl-4-(1,2,2-trimethylcyclopentyl)-, (R)-
Benzenebutanenitrile
Bicyclo[4.1.0]heptane, 7-bicyclo[4.1.0]hept-7-ylidene-
Cyclohexene, 1-methyl-4-(5-methyl-1-methylene-4-hexenyl)-, (S)-
Dichloromethyldimethylsilyloxybenzene
Dodecane, 1-fluoro-

Hexahydro-5.lambda.(6)-thieno[3,4-b]pyrrol-2-one, 1-(1,5-dimethyl-3-oxo-2-phenyl-2,3-dihydro-1H-pyrazol-4-yl)-5,5-dioxo-
Homomenthyl salicylate
Mannitol, 5-phenylpent-1-yl-
N-Chloro-2-methyl-2-phenylaziridine
Thujopsene

Sample H

Camphor-10-sulfonamide
(Z)6-Pentadecen-1-ol
.alpha.-Santonin
.psi.,.psi.-Carotene, 3,4-didehydro-1,1',2,2'-tetrahydro-1'-hydroxy-1-methoxy-
.psi.,.psi.-Carotene, 3,4-didehydro-1,2,7',8'-tetrahydro-1-methoxy-2-oxo-
1,1'-(4-Methyl-1,3-phenylene)bis{3-[5-(p-tolyl)-1,3,4-thiadiazol-2-yl]urea}

1,2,3,4-Cyclopentanetetrol, (1 π 2 π 3 π 4 π -
 1,2-Benzisothiazole
 1,3-Dioxane, 2-pentadecyl-
 1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
 1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
 1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
 10,13-Octadecadiynoic acid, methyl ester
 10,13-Octadecadiynoic acid, methyl ester
 10,13-Octadecadiynoic acid, methyl ester
 11-Tridecyl propionate
 13-Octadecenal, (Z)-
 1-Heptafluorobutyryloxy-3-phenylpropane
 1-Heptatriacotanol
 1-Heptatriacotanol
 2,4,6-Trimethylmandelic acid
 2,4,6-Trimethylmandelic acid
 2,4-Dodecadienal
 2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
 2,5-di-tert-Butyl-1,4-benzoquinone
 2,6-Adamantediol, bis(methanesulfonate)
 2-Aminomethyl-1-benzyloxypyrrole

 2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl-4a,7a-epoxy-5H-cyclopenta[a]cyclopropa[f]cycloundecen-11-yl ester, [1aR-[1aR*,2R*,3S*,4aR*,6S*,7S*,7aS*,8E,10R*,11R*(E),11aS*]]-

 2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl-4a,7a-epoxy-5H-cyclopenta[a]cyclopropa[f]cycloundecen-11-yl ester, [1aR-[1aR*,2R*,3S*,4aR*,6S*,7S*,7aS*,8E,10R*,11R*(E),11aS*]]-

 2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl-4a,7a-epoxy-5H-cyclopenta[a]cyclopropa[f]cycloundecen-11-yl ester, [1aR-[1aR*,2R*,3S*,4aR*,6S*,7S*,7aS*,8E,10R*,11R*(E),11aS*]]-
 2-Decen-1-ol, (E)-
 2-Nonadecanone 2,4-dinitrophenylhydrazine
 2-Propenoic acid, 3-(1H-pyrrol-3-yl)-, (E)-
 3-Hexanol, 2,4-dimethyl-
 3-Oxatricyclo[20.8.0.0(7,16)]triaconta-1(22),7(16),9,13,23,29-hexaene
 3-Oxo-10(14)-epoxyguai-11(13)-en-6,12-olide
 4,7,10,13,16,19-Docosahexaenoic acid, methyl ester, (all-Z)-
 5,8,11-Heptadecatriynoic acid, methyl ester
 6,9,12,15-Docosatetraenoic acid, methyl ester
 6,9-Octadecadiynoic acid, methyl ester
 6-Amino-3-thiophen-2-yl-4-(4-trifluoromethyl-phenyl)-1,4-dihydro-pyrano[2,3-c]pyrazole-5-carbonitrile
 7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
 9-Octadecenal

 Acetic acid, 10-hydroxy-12a-methyl-7-oxo-1,2,3,3a,3b,4,5,7,8,9,10,11,12,12a-tetradecahydro-benzo[c]cyclopenta[h]azulen-1-yl ester
 Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
 Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
 Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
 Androstan-17-one, 3-ethyl-3-hydroxy-, (5 π -
 Benzene, (1-butylhexyl)-
 Benzene, (1-methylhexadecyl)-
 Benzene, (1-methylnonyl)-
 Benzene, (1-methylundecyl)-
 Benzene, (1-pentylheptyl)-
 Benzene, (1-pentylhexyl)-
 Benzene, 1,1'-(1-methyl-1,2-ethanediyl)bis-

Benzene, 1,1'-[3-(2-phenylethylidene)-1,5-pentanediy]bis-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzenebutanenitrile
Bis(pentamethylcyclotrisiloxy)tetramethyldisiloxane
Cholesta-8,24-dien-3-ol, 4-methyl-, (3 π 4 π -
cis-9,10-Epoxyoctadecan-1-ol
Cyclopentanone, 2-acetyl-3,3-dimethyl-2-(3-methylbutyl)-
Dasycarpidan-1-methanol, acetate (ester)
Dasycarpidan-1-methanol, acetate (ester)
Dicyclopenta[a,d]cyclooctan-4-ol, 9,10a-dimethyl-3,3a-epoxy-3-isopropyl-6-methylene-, benzoate
Digoxigenin
Erucic acid
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Heptanoic acid
Hexadecane, 1,1-bis(dodecyloxy)-
Indan-1,2-dione, 4-methyl-
Limonen-6-ol, pivalate
Lycoxanthin
Matridin-15-one, 11,12,13,14-tetrahydro-, (6 π -
Methanol, tris(methylenecyclopropyl)-
Naphthalene, 1,2,3,4-tetrahydro-5,7-dimethyl-
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
Oleic acid, eicosyl ester
Pentanoic acid
Pentanoic acid
Phenol, 2,4,6-tris(1-methylethyl)-
Hexestrol
Phthalic acid, 6-ethyl-3-octyl butyl ester
Phthalic acid, cyclobutyl hexyl ester
Pregn-5-ene-3,8,11,12,14,20-hexol, (3 π 11 π 12 π 14 π -
Pyrimidine-2,4-dione, hexahydro-3,6-dimethyl-1-(4-morpholinobutyl)-
Pyrrolidine, 1-[4-(4-chlorophenyl)-3-phenyl-2-butenyl]-
Resibufogenin
Rhodopin
Rhodopin
Rhodopin
Rhodopin
Rhodopin
Stearic acid, 2-hydroxy-1-methylpropyl ester
Z,Z-2,5-Pentadecadien-1-ol
(+)-Camphor-10-sulfonyl chloride
1-[2-O-BENZOYL-3,5-O-DIBENZYL- α -D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE

Sample I

10,18-Bisnorabieta-8,11,13-triene
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2,7-Octanedione, 4,4-dimethyl-3-[2-(1-hydroxy-1-methylethyl)-3-methyl-3-butenylidene]-
2H-Indeno[1,2-b]furan-2-one, 3,3a,4,5,6,7,8,8b-octahydro-8,8-dimethyl
2-Hydrazino-2-imidazoline
4b,8-Dimethyl-2-isopropylphenanthrene, 4b,5,6,7,8,8a,9,10-octahydro-
4b,8-Dimethyl-2-isopropylphenanthrene, 4b,5,6,7,8,8a,9,10-octahydro-
4-Hydroxymandelic acid, ethyl ester, di-(O-t-butyl)dimethylsilyl)
5-Phenylvaleric acid

7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
Benzene, (1-bromoethyl)-
Benzene, (1-butyloctyl)-
Benzene, (1-ethylheptyl)-
Benzene, (1-methyldodecyl)-
Benzene, (3-methyl-3-butenyl)-
Benzene, 1,3,5-trichloro-2-methoxy-
Benzenebutanenitrile
Benzenebutanenitrile
Benzoic acid, 4-(4-butylcyclohexyl)-, 4-butoxy-2,3-dicyanophenyl ester
Benzoic acid, 4-(4-butylcyclohexyl)-, 4-butoxy-2,3-dicyanophenyl ester
Dichloroacetic acid, 3-phenylpropyl ester
E-7-Tetradecenol
Erythro-9,10-dihydroxyoctadecanoic acid
Hexadecane, 1,1-bis(dodecyloxy)-
Hexane, 3,4-diphenyl-
Homomenthyl salicylate
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
Phenol, 2,5-bis(1,1-dimethylethyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenylacetic acid, 4-cyanophenyl ester
Podocarp-7-en-3-one, 13 π methyl-13-vinyl-

UNUSED FIBER

Sample 1

(4-Methoxyphenyl)carbamic acid 4-cyclohexylphenyl ester
(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol
(R)-(-)-14-Methyl-8-hexadecyn-1-ol
1,14-Tetradecanediol
1,3-Cyclopentadiene, 2,3,4,5-tetramethyl-1-[2-(1-pyrrolyl)ethyl]-
1,3-Dioxane, 5-(hexadecyloxy)-2-pentadecyl-, cis-
1-[2-O-BENZOYL-3,5-O-DIBENZYL- α -D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
13-Heptadecyn-1-ol
13-Heptadecyn-1-ol
19-Nor-4-androsten-3-one, 17-(3-phenylpropanoyloxy)-
1-Cyclohexyldimethylsilyloxydodecane
1-Dodecanamine, N,N-dimethyl-
1-Heptatriacotanol
1-Heptene, 2-pentyl-
2,2'-Stilbenediamine
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2,5-Octadecadienoic acid, methyl ester
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-Decen-1-ol, (E)-
2-Dodecenal
2-Dodecenal
2H-Cyclopenta[a]phenanthrene-3,17-dione, 16-(1,3-dimethyl-1H-pyrazol-4-ylmethylene)-10,13-dimethyl-1,6,7,8,9,10,11,12,13,14,15,16-dodecahydro-
2-Octylcyclopropene-1-heptanol
2-Oxepanone, 7-hexyl-
2-Oxepanone, 7-hexyl-
2-Phenyl-1-p-toluenesulfonylaziridine
3,5-di-tert-Butyl-4-hydroxybenzaldehyde

3-Methylcyclopentadecylcarbamic acid, t-butyl ester
 3-Oxatricyclo[20.8.0.0(7,16)]triaconta-1(22),7(16),9,13,23,29-hexaene
 3-Phenylpropanoic acid, dodec-9-ynyl ester
 4,4-Ethylenedioxy-1-pentylamine
 4b,8-Dimethyl-2-isopropylphenanthrene, 4b,5,6,7,8,8a,9,10-octahydro-
 4b,8-Dimethyl-2-isopropylphenanthrene, 4b,5,6,7,8,8a,9,10-octahydro-
 5aH,10aH-4a,9a-Epoxydibenzo[b,e][1,4]dioxin-5a,10a-diol, octahydro-, (4aπ5aπ9aπ10aπ-
 5-Heptadecene, 1-bromo-
 7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione

 Acetic acid, 10-hydroxy-12a-methyl-7-oxo-1,2,3,3a,3b,4,5,7,8,9,10,11,12,12a-tetradecahydro-benzo[c]cyclopenta[h]azulen-1-yl ester
 Androst-5-ene-3,17,19-triol
 Atis-16-ene, (5π8π9π10π12π-
 Benzaldehyde, 2,5-bis[(trimethylsilyloxy]-
 Benzene, (1-butylhexyl)-
 Benzene, (1-ethylheptyl)-
 Benzene, (1-ethyloctyl)-
 Benzene, (1-methylnonyl)-
 Benzene, (1-pentylheptyl)-
 Benzene, (1-propylheptyl)-
 Benzene, (2-iodoethyl)-
 Benzene, 1,1'-(1-methyl-1,2-ethanediy)bis-
 Benzene, 1,1'-(1-methyl-1,2-ethanediy)bis-
 Benzenebutanoic acid, πmethyl-πoxo-
 Benzenethiol, 4-(1,1-dimethylethyl)-2-methyl-
 Benzoic acid, 4-(4-butylcyclohexyl)-, 4-butoxy-2,3-dicyanophenyl ester
 Benzoic acid, 4-(4-butylcyclohexyl)-, 4-butoxy-2,3-dicyanophenyl ester
 Bicyclo[3.3.0]octane, 5-azonia-1-borata-2,8-dioxa-1-ethyl-
 Bicyclo[3.3.0]octane, 5-azonia-1-borata-2,8-dioxa-1-ethyl-
 Butanoic acid, 4-methoxy-
 Butylated Hydroxytoluene
 Camphorsulfonic acid
 Carnegine
 Chloroacetic acid, octyl ester
 Dicyclopenta[a,d]benzene, 4,8-diethyl-1,5-dimethyl-
 E,E,Z-1,3,12-Nonadecatriene-5,14-diol
 E-7-Tetradecenol
 Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
 Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
 Ethanol, 2-(9-octadecenyloxy)-, (Z)-
 Ethanol, 2-(9-octadecenyloxy)-, (Z)-
 Hexadecane, 1,1-bis(dodecyloxy)-
 Hexadecane, 1,1-bis(dodecyloxy)-
 Hexadecane, 1,1-bis(dodecyloxy)-
 Hexadecane, 1,1-bis(dodecyloxy)-

 Hexahydro-5.lambda.(6)-thieno[3,4-b]pyrrol-2-one, 1-(1,5-dimethyl-3-oxo-2-phenyl-2,3-dihydro-1H-pyrazol-4-yl)-5,5-dioxo-
 Indan-1,2-dione, 4-methyl-
 Indan-1,2-dione, 4-methyl-
 Indan-1,2-dione, 4-methyl-
 Kaur-16-ene, (8.beta.,13.beta.)-
 N-(5-Hydroxy-2-oxo-5-phenyl-1-aza-bicyclo[4.2.0]oct-3-yl)carbamic acid, benzyl ester
 Octane, 1,1'-oxybis-
 Oxirane, 2-decyl-3-(5-methylhexyl)-, cis-(π-
 Phenanthrene, 7-ethenyl-1,2,3,4,4a,4b,5,6,7,8,10,10a-dodecahydro-1,1,4a,7-tetramethyl-, [4aS-(4aπ4bπ7π10aπ)-

Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Hexestrol
Hexestrol
Phthalic acid, 6-ethyl-3-octyl butyl ester
Sulfuric acid, 5,8,11-heptadecatrienyl methyl ester
Thieno[2,3-c]pyridine

Sample 2

(+)-Camphor-10-sulfonyl chloride
(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol
(R)-(-)-14-Methyl-8-hexadecyn-1-ol
1,14-Tetradecanediol
1,14-Tetradecanediol
1,3,5-Pentanethione, 1-(4-methoxyphenyl)-5-phenyl
1,3-Dioxolane-4-methanol, 2-pentadecyl-, acetate, cis-
1,4,7,10-Tetraoxa-13-azacyclopentadecane
1-[2-O-BENZOYL-3,5-O-DIBENZYL- α -D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
10-Methyl-E-11-tridecen-1-ol propionate
11-Tridecenyl propionate
12,15-Octadecadienoic acid, methyl ester
1-Dodecanamine, N,N-dimethyl-
1-Dodecanol, 3,7,11-trimethyl-
1-Dodecanol, 3,7,11-trimethyl-
1-Hexadecanol, 2-methyl-
1-Hexene, 6-phenyl-4-(1-phenylethoxy)-
1-Undecene, 11-nitro-
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,7-Octanedione, 4,4-dimethyl-3-[2-(1-hydroxy-1-methylethyl)-3-methyl-3-butenylidene]-
2-Dodecenal
2-Dodecenal
2-Myristinoyl pantetheine
2-Oxepanone, 7-hexyl-
2-Tridecenal, (E)-
3,3-Diisopropoxy-1,1,1,5,5,5-hexamethyltrisiloxane
3-Cyclohexene-1-methanamine, $\pi\pi$ 4-trimethyl-
4-Piperidinemethanamine
5-Phenylvaleric acid
5-Undecene, 9-methyl-, (Z)-
6-(Methylthio)hexa-1,5-dien-3-ol
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7-Heptadecene, 17-chloro-
7-Heptadecene, 17-chloro-
8-Methyl-8-aza-5,10-dioxa-4-silaspiro[3.7]undecane
9-Tetradecen-1-ol, acetate, (E)-
Acetic acid, trichloro-, 3-phenylpropyl
Benzaldehyde, 2,5-bis[(trimethylsilyl)oxy]-
Benzene, (1-butylpentyl)-
Benzene, (1-ethyldodecyl)-
Benzene, (1-methyldecyl)-
Benzene, (1-methyldecyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylnonyl)-

Benzene, (1-pentylhexyl)-
Benzene, 1,1'-(1,2-dimethyl-1,2-ethanediyl)bis-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzenepentanol
Benzenepropanoic acid, 10-oxotricyclo[4.2.1.1(2,5)]deca-3,7-dienyl ester
Biphenyl
Biphenyl
Butanoic acid, 4-methoxy-
Chloroacetic acid, octyl ester
cis-1-Chloro-9-octadecene
Cyclobutane, 1,1-dimethyl-2-octyl-
Decanoic acid, octadecyl ester
Dibenzo[b,f][1,4]diazocine
Dodecane, 1-fluoro-
Dodecane, 1-fluoro-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Indan-1,2-dione, 4-methyl-
N-(1-Hydroxy-4-oxo-1-phenylperhydroquinolizin-3-yl)carbamic acid, benzyl ester
N-(5-Hydroxy-2-oxo-5-phenyl-1-aza-bicyclo[4.2.0]oct-3-yl)carbamic acid, benzyl ester
Naphthalene, 1,2,3,4-tetrahydro-1,5-dimethyl-
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
Octane, 1,1'-oxybis-
Phenol, 2,4-di-t-butyl-6-nitro-
Phenol, 2,5-bis(1,1-dimethylethyl)-
Phenylacetic acid, 4-nitrophenyl ester
Pregnan-20-one, 3,11,21-tris[(trimethylsilyl)oxy]-, (3 π 5 π 11 π -
Thieno[2,3-c]pyridine

Sample 3

(4-Methoxyphenyl)carbamic acid 4-cyclohexylphenyl ester
.alpha.-Ribazole, 3',5'-O-dibenzyl-
 π L-Mannofuranose, 6-deoxy-, cyclic 1,2:3,5-bis(ethylboronate)
1,2,5-Oxadiazole, 3,4-bis(2-thienylcarbonylamino)-
1,3,5,2-Oxaazoniaazaboratin, 2,2-diethyl-1,2,5,6-tetrahydro-3,4-(1',4'-butanediyl)-6,5-(butyliden-4"-yl)-
1-Decene, 3,3,4-trimethyl-
1-Heptanol, 3-methyl-
1-Hexadecanol, 2-methyl-
1-Hexadecyn-3-ol, 3,7,11,15-tetramethyl-
1-Hexanamine, 2-ethyl-N,N-dimethyl-
1H-Imidazole, 1-(1-oxooctadecyl)-
1-Isopropyl-2,2-dimethylpropylideneamine
2(3H)-Benzothiazolethione, 3-methyl-
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2-Dodecenal
2-Dodecenal
2-Methylpyrrolidine
2-Myristinoyl pantetheine
2-Nitrobenzenesulfonamide

2-n-Propylaziridine
2-Phenyl-2,3,4,5-tetrahydro-1H-benzo[d]azepine
3,5-Bis(morpholino N-methyl), 4-oxo, 2,2,6,6-tetramethylpiperidine-1-oxyl
3-Trifluoroacetoxypentadecane
4,4-Ethylenedioxy-1-pentylamine
4-Hydroxymandelic acid, ethyl ester, di-(O-t-butyl dimethylsilyl)
4-Piperidinone, 2,2,6,6-tetramethyl-
5aH,10aH-4a,9a-Epoxydibenzo[b,e][1,4]dioxin-5a,10a-diol, octahydro-, (4aπ5aπ9aπ10aπ-
5-Phenylvaleric acid
6-Methyl-cyclohex-2-en-1-ol
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7-Methoxy-2,2,4,8-tetramethyltricyclo[5.3.1.0(4,11)]undecane
9-Octadecenoic acid, 2-phenyl-1,3-dioxan-5-yl ester
9-Thiabicyclo[3.3.1]non-6-en-2-amine, N-methyl-, 9-oxide, (endo,syn)-
Allyldimethylsilane
Benzene, (1-methyldecyl)-
Benzene, (1-methylnonyl)-
Benzene, (1-propylheptadecyl)-
Benzene, (3-nitropropyl)-
Benzene, 1,1'-(1-methyl-1,2-ethanediyl)bis-
Benzene, 1-benzyloxy-5-diethylamino-2,4-dinitro-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzeneacetic acid, 4-methyl-π[(phenylmethylene)amino]methyl]-, methyl ester
Benzenebutanenitrile
Benzenebutanenitrile
Bicyclo[3.3.0]octane, 5-azonia-1-borata-2,8-dioxa-1-ethyl-
Bicyclo[3.3.0]octane, 5-azonia-1-borata-2,8-dioxa-1-ethyl-
Bicyclo[3.3.0]octane, 5-azonia-1-borata-2,8-dioxa-1-ethyl-
Bicyclo[3.3.0]octane, 5-azonia-1-borata-2,8-dioxa-1-ethyl-
Biphenyl
Butanoic acid, 4-methoxy-
Chloroacetic acid, octyl ester
Chloroacetic acid, octyl ester
cis-1-Chloro-9-octadecene
Decanoic acid, octadecyl ester
di-p-Tolylacetylene
erythro-(cis)(1,4),(cis)(1',4')-4,4'-Dihydroxybicyclooctyl
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Hex-1-yne, 6-benzyloxy-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexane, 1-(ethoxymethoxy)-
Hexestrol
Hexestrol
Hexestrol
Mannosamine
Methoxymethyl(triethyl)stannane
N-(5-Hydroxy-2-oxo-5-phenyl-1-aza-bicyclo[4.2.0]oct-3-yl)carbamic acid, benzyl ester
N,N'-Dibenzylideneethylenediamine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
Octane, 1,1'-oxybis-
Octane, 1,1'-oxybis-

Oxiraneoctanoic acid, 3-octyl-, cis-
Phenol, 2,4-di-t-butyl-6-nitro-
Phenol, 2,5-bis(1,1-dimethylethyl)-
Phenylacetic acid, 4-nitrophenyl ester
Phthalic acid, cyclobutyl hexyl ester
Phthalic acid, hexyl tridec-2-yn-1-yl ester
Propanamide, N-[3,5-bis(trifluoromethyl)phenyl]-3-(4-morpholyl)-
Pyrrolidine, 1-(1,6-dioxooctadecyl)-
Thieno[2,3-c]pyridine
Thieno[2,3-c]pyridine

Sample 4

(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol
.alpha.-Santonin
1-(2-Hydroxyethoxy)-2-(vinylthio)ethane
1-(2-Hydroxyethoxy)-2-(vinylthio)ethane
1,1-Cyclobutanedicarboxamide, 2-phenyl-N,N'-bis(1-phenylethyl)-
1,2-Benzisothiazole
1,3-Dioxane, 5-(hexadecyloxy)-2-pentadecyl-, cis-
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
10,18-Bisnorabieta-8,11,13-triene
13,16-Octadecadiynoic acid, methyl ester
13-Heptadecyn-1-ol
1-Heptene, 2,6,6-trimethyl-
1-Octanol, 3,7-dimethyl-
1-Phenanthrenecarboxylic acid, 7-ethenyl-1,2,3,4,4a,4b,5,6,7,8,10,10a-dodecahydro-3-hydroxy-4a,7-dimethyl-, methyl ester, [1R-(1 π 3 π 4 π 4 π 4 π 7 π 10 π)]-
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,6-Dimethyl-4-(2-thienyl)-1,4-dihydro-3,5-pyridinedicarbonitrile
2-Hexadecanol
2H-Pyran, 2-(7-heptadecyloxy)tetrahydro-
3-Methyl-2-butenic acid, heptadecyl ester
3-Oxatricyclo[20.8.0.0(7,16)]trianta-1(22),7(16),9,13,23,29-hexaene
3-Phenylpropanoic acid, dodec-9-ynyl ester
4,4-Ethylenedioxy-1-pentylamine
4b,8-Dimethyl-2-isopropylphenanthrene, 4b,5,6,7,8,8a,9,10-octahydro-
4-Piperidinone, 2,2,6,6-tetramethyl-
5,19-Cyclo-5 π androst-6-ene-3,17-dione
5-Methyl-2-phenylindolizine
6-(Methylthio)hexa-1,5-dien-3-ol
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7-Heptadecene, 17-chloro-
9,10-Secochole-5,7,10(19)-trien-24-al, 3-hydroxy-, (3 π 5Z,7E)-
9-Heptadecene-4,6-dien-8-ol, (Z)-
9-Hexadecenoic acid, hexadecyl ester, (Z)-
Acetic acid, [6,8,9-trimethyl-4-(3,4-methylenedioxyphenyl)-3-oxabicyclo[3.3.1]non-6-en-1-yl)methyl ester
Atiserene
Benzaldehyde, 4-(1-methylethyl)-

Benzene, (1-butylhexyl)-
Benzene, (1-methyldecyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylnonadecyl)-
Benzene, (1-methylnonadecyl)-
Benzene, (1-methylnonadecyl)-
Benzene, (1-methylnonyl)-
Benzene, (1-methylundecyl)-
Benzene, (1-pentyloctyl)-
Benzene, 1,1'-[3-(2-phenylethylidene)-1,5-pentanediy]bis-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzenebutanoic acid, .alpha.-oxo-, ethyl ester
Benzoic acid, 4-(4-butylcyclohexyl)-, 2,
Benzoic acid, 4-(4-butylcyclohexyl)-, 4-
Bicyclo[3.3.0]octane, 5-azonia-1-borata-2,8-dioxa-1-ethyl-
Bicyclo[4.1.0]hept-3-ene, 7,7-dimethyl-3-vinyl-
Chloroacetic acid, octyl ester
Chloroacetic acid, octyl ester
Chloroacetic acid, octyl ester
Cholesta-8,24-dien-3-ol, 4-methyl-, (3 π 4 π -
Cholestan-3-ol, 2-methylene-, (3 π 5 π -
cis-1-Chloro-9-octadecene
D-Fructose, 1,3,6-trideoxy-3,6-epithio-
E-7-Tetradecenol
Ethanol, 2-(9,12-octadecadienyloxy)-,), (Z,Z)-
Heptane, 2,6-diphenyl-3-methyl-
Heptane, 2,6-diphenyl-3-methyl-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexestrol
N-(1-Hydroxy-4-oxo-1-phenylperhydroquinolizin-3-yl)carbamic acid, benzyl ester
N-(1-Hydroxy-4-oxo-1-phenylperhydroquinolizin-3-yl)carbamic acid, benzyl ester
N-(5-Hydroxy-2-oxo-5-phenyl-1-aza-bicyclo[4.2.0]oct-3-yl)carbamic acid, benzyl ester
Naphthalene, 1,2,3,4,5,6-hexahydro-1,1,6-trimethyl-
Naphthalene, 1,2,3,4-tetrahydro-6,7-dimethyl-
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
Octadecane, 1-chloro-
o-Toluic acid, 3-phenylpropyl ester
Phenol, 2,5-bis(1,1-dimethylethyl)-
Phenol, 2,6-bis(1,1-dimethylethyl)-4-ethyl-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 4,4'-(1,2-diethyl-1,2-ethanediyl)bis-
Phenylacetic acid, 4-nitrophenyl ester
Pimaric acid
Pseudoephedrine, (+)-
Quinoline, 1,2-dihydro-2,2,4-trimethyl-

sec-Butyl nitrite

S-Indacene-1,7-dione, 2,3,5,6-tetrahydro-3,3,4,5,5,8-hexamethyl-

Sample 5

(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol
.alpha.-D-Xylofuranoside, methyl 2-O-methyl-
1,2-Benzisothiazole
1,3-Dioxane, 4-(hexadecyloxy)-2-pentadecyl-
1,4,8-Metheno-1H-cyclopent[f]azulene, 3a,4,4a,7,7a,8,9,9a-octahydro-
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
11-Tridecenyl propionate
15-Hydroxy-7-oxodehydroabiatic acid, methyl ester
1-Cyclopropyl-2-phenylethane
1-Hexadecanol, 2-methyl-
1-Hexanamine, N-(phenylmethylene)-
2,4,4,6-Tetramethyl-6-phenylheptane
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2,6-Bis(1,1-dimethylethyl)-4-(1-oxopropyl)phenol
2H-Benzocyclohepten-2-one, decahydro-9a-methyl-, trans-
2-Myristinoyl pantetheine
2-Oxepanone, 7-hexyl-
2-Oxepanone, 7-hexyl-
3-Nonen-1-ol, (E)-
4a,8a-Ethenonaphthalene, 1,2,3,4,5,8-hex
4-Pentadecyne, 15-chloro-
5,8,11,14,17-Eicosapentaenoic acid, methyl ester, (all-Z)-
5aH,10aH-4a,9a-Epoxydibenzo[b,e][1,4]dioxin-5a,10a-diol, octahydro-, (4aπ5aπ9aπ10aπ-
5aH,10aH-4a,9a-Epoxydibenzo[b,e][1,4]dioxin-5a,10a-diol, octahydro-, (4aπ5aπ9aπ10aπ-
5-Chloropentanoic acid, 3-phenylpropyl ester
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
Benzaldehyde, 2,5-bis(trimethylsilyloxy)-
Benzene, (1-ethyldodecyl)-
Benzene, (1-ethyldodecyl)-
Benzene, (1-methyldecyl)-
Benzene, (1-methyldecyl)-
Benzene, (1-methyldodecyl)-
Benzene, (1-methyldodecyl)-
Benzene, (1-methyldodecyl)-
Benzene, (1-methyldodecyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylnonadecyl)-
Benzene, (1-methylnonyl)-
Benzene, (1-methylundecyl)-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzenebutanoic acid, .beta.-methyl-
Benzenebutanoic acid, .beta.-methyl-
Benzeneethanol, .beta.-methyl-
Bis(pentamethylcyclotrisiloxy)tetramethy
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Heptane, 2,6-diphenyl-3-methyl-
Heptane, 2,6-diphenyl-3-methyl-

Indan-1,2-dione, 4-methyl-
Indan-1,2-dione, 4-methyl-
Indan-1,2-dione, 4-methyl-
Isoquinolin-4-ol, 1,2,3,4-tetrahydro-6,7
Mannitol, 5-phenylpent-1-yl-
N-(1-Cyanoethyl)(7,7-dimethyl-2-oxobicyclo[2.2.1]hept-1-ylmethanesulfonamide
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
Oleyl Alcohol
o-Toluic acid, 3-phenylpropyl ester
Phenol, 2,5-bis(1,1-dimethylethyl)-
Phthalic acid, (2-chlorocyclohexyl)methyl decyl ester
Phthalic acid, 6-ethyl-3-octyl butyl ester

Sample 6

(+)-N-Benzyl-alpha-methyl-N-nitrosobenzylamine
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene-
πD-Xylofuranoside, methyl 2,5-di-O-methyl-
1,2-Benzisothiazole
1,3-Cyclohexadiene-1-carboxylic acid, 2,6,6-trimethyl-, ethyl ester
1,3-Cyclohexadiene-1-carboxylic acid, 2,6,6-trimethyl-, ethyl ester
1,3-Dioxane, 5-(hexadecyloxy)-2-pentadecyl-, cis-
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
10,13-Octadecadiynoic acid, methyl ester
10,18-Bisnorabieta-8,11,13-triene
10,18-Bisnorabieta-8,11,13-triene
19-Nor-4-androsten-3-one, 17-(3-phenylpropanoyloxy)-
1-Hexanol, 2-ethyl-
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,6-Dimethyl-4-(2-thienyl)-1,4-dihydro-3,5-pyridinedicarbonitrile
2,6-Dimethyl-4-(2-thienyl)-1,4-dihydro-3,5-pyridinedicarbonitrile
2,6-Dimethyl-4-nitro-3-phenyl-cyclohexanone
2-Cyclohexylpiperidine
2-Hexadecanol
2-Methyl-7-phenylindole
2-Oxepanone, 7-hexyl-
3,5-Bis(morpholino N-methyl), 4-oxo, 2,2,6,6-tetramethylpiperidine-1-oxyl
3,5-Di(2-thienyl)pyridine
4-Amino-1-πd-robofuranosylpyrazolo[3,4-d]pyrimidine 5'-phosphate
4-Azido-2-nitrobutyric acid, 2,6-di-t-butyl-4-methoxyphenyl ester
4-Octadecenal
5-(4-Trifluoromethylsulfonylphenylazo)-1,2,3,4,5-pentamethylcyclopentadiene
5-(4-Trifluoromethylsulfonylphenylazo)-1,2,3,4,5-pentamethylcyclopentadiene

6,9,12,15,23,26,31,34-Octaoxa-1,3,18,20-tetraazabicyclo[18.8.8]hexatriacontan- 2,19-dithione
6-Dodecanol acetate
6-Ethoxy-4-methylquinoline-2-thiol
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
Acetic acid, trichloro-, octyl ester
Androst-5-ene-3,17,19-triol
Atiserene
Benzene, (1-methyldecyl)-
Benzene, (1-methylnonadecyl)-
Benzene, (1-methylnonadecyl)-
Benzene, (1-methylnonyl)-
Benzene, (1-methylundecyl)-
Benzene, (1-pentylhexyl)-
Benzene, (1-propylnonyl)-
Benzene, (3-nitropropyl)-
Benzene, 1,1'-(1,2-dichloro-1,2-ethenediyl)bis-, (Z)-
Benzene, 1,1'-(oxydiethylidene)bis-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzenepentanol
Benzenethiol, 4-(1,1-dimethylethyl)-2-methyl-
Benzestrol
Benzoic acid, 4-(4-butylcyclohexyl)-, 4-
Bicyclo[3.1.1]hept-2-ene, 2,2'-(1,2-ethanediyl)bis[6,6-dimethyl-
Bicyclo[3.3.0]octane, 5-azonia-1-borata-2,8-dioxa-1-ethyl-
Bicyclo[4.1.0]heptane, 7-bicyclo[4.1.0]hept-7-ylidene-
Butanediamide, N-benzyl-N'-(2,3-dimethylphenyl)-
Decane, 1-(ethenyloxy)-
E-7-Tetradecenol
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Ethylidenecyclooctane
Heptane, 2,6-diphenyl-3-methyl-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
Hexane, 3,4-diphenyl-
Hexestrol
Indan-1,2-dione, 4-methyl-
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
Octane, 1,1'-oxybis-
o-Toluic acid, 3-phenylpropyl ester
Pent-1-yne, 5-benzyloxy-
Pent-1-yne, 5-benzyloxy-
Phenol, 2,5-bis(1,1-dimethylethyl)-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 4-(1,1,3,3-tetramethylbutyl)-
Phenol, 4-(1,1-dimethylpropyl)-
Phthalic acid, cyclobutyl hexyl ester
p-Toluic acid, 3-phenylpropyl ester
Tridecanedial
Vitamin A aldehyde

Sample 7

(+)-Camphor-10-sulfonyl chloride
.alpha.-D-Xylofuranoside, methyl 2-O-methyl-

.beta.-Guaiene
1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl ester
1,2-Benzisothiazole
1,3-Dioxane, 5-(hexadecyloxy)-2-pentadecyl-, cis-
1,3-Dioxolane-4-methanol, 2-pentadecyl-, acetate, cis-
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
10,13-Octadecadiynoic acid, methyl ester
11-Tridecyl propionate
13-Heptadecyn-1-ol
1-Heptafluorobutyryloxy-3-phenylpropane
1-Heptatriacotanol
1-Propanamine, N-(phenylmethylene)-
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2-[4-methyl-6-(2,6,6-trimethylcyclohex-1-enyl)hexa-1,3,5-trienyl]cyclohex-1-en-1-carboxaldehyde
2-Dodecenal
2-Oxepanone, 7-hexyl-
2-Tridecenal, (E)-
3,3a-Epoxydicyclopenta[a,d]cyclooctan-4-ol, 9,10a-dimethyl-6-methylene-3- π isopropyl-
3,5-di-tert-Butyl-4-hydroxybenzaldehyde
4,7-Octadecadiynoic acid, methyl ester
6,9-Octadecadiynoic acid, methyl ester
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
Benzene, (1-butylpentyl)-
Benzene, (1-methyldecyl)-
Benzene, (1-methylnonyl)-
Benzene, (1-methylundecyl)-
Benzene, (1-pentylhexyl)-
Benzene, (1-propyloctyl)-
Benzene, (2-iodoethyl)-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzenepentanol
Benzenethiol, 4-(1,1-dimethylethyl)-2-methyl-
Benzothiazol-2(3H)-one, 3-(4-morpholylmethyl)-
Carnegine
Chloroacetic acid, octyl ester
Cholestan-3-ol, 2-methylene-, (3 π 5 π -
cis-9,10-Epoxyoctadecan-1-ol
Cyclopropa[c,d]pentalene-1,3-dione, hexahydro-4-(2-methyl-2-propenyl)-2,2,4-trimethyl-
Cyclopropa[c,d]pentalene-1,3-dione, hexahydro-4-(2-methyl-2-propenyl)-2,2,4-trimethyl-
Cyclopropaneacetic acid, 2-hexyl-
Cyclopropaneoctanoic acid, 2-[[2-[(2-ethylcyclopropyl)methyl]cyclopropyl]methyl]-, methyl ester
Dodecane, 1-fluoro-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Fenretinide
Hexadecane, 1,1-bis(dodecyloxy)-
Hexadecane, 1,1-bis(dodecyloxy)-
l-Phenylalanyl-glycine

N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
Pent-1-yne, 5-benzyloxy-
Phenol, 2,4,6-tris(1-methylethyl)-
Phenol, 4,4'-(1,2-diethyl-1,2-ethanediyl)bis-
Phenol, 4,4'-(1,2-diethyl-1,2-ethanediyl)bis-
Phenylacetic acid, 4-nitrophenyl ester
Phthalic acid, butyl hex-2-yn-4-yl ester
Vitamin A aldehyde
Vitamin A aldehyde

Sample 8

(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol
 π D-Xylofuranoside, methyl 2-O-methyl-
.alpha.-Santonin
[2-(5-Hydroxypent-2-ynyl)-3-oxocyclopentyl]thioacetic acid, S-t-butyl ester
1,2-15,16-Diepoxyhexadecane
1,2-Benzisothiazole
1,3-Dioxane, 5-(hexadecyloxy)-2-pentadecyl-, cis-
1,8-Dibenzyl-3,6-diazahomoadamantan-9-one
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
1-[2-O-BENZOYL-3,5-O-DIBENZYL-alpha-D-RIBOSYL]-5,6-DIMETHYLBENZIMIDE
10,13-Octadecadiynoic acid, methyl ester
11-Tridecenyl propionate
13-Heptadecyn-1-ol
1-Cyclohexyldimethylsilyloxydodecane
1-Heptatriacotanol
1-Hexene, 3-methyl-6-phenyl-4-(1-phenylethoxy)-
1-Propanamine, N-(phenylmethylene)-
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,5-Octadecadiynoic acid, methyl ester
2,9-Heptadecadiene-4,6-diyne-8-ol, (Z,E)-
2-Oxepanone, 7-hexyl-
3-[(2-Dimethylamino-ethylamino)-methyl]-8a-methyl-5-methylene-decahydro-naphtho[2,3-b]furan-2-one
3-Methyl-2-butenic acid, undec-10-enyl ester
4,7-Octadecadiynoic acid, methyl ester
4,7-Octadecadiynoic acid, methyl ester
4-Cyclopentene-1,3-dione, 4-methoxy-5-methyl-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7-Heptadecene, 17-chloro-
7-Heptadecene, 17-chloro-
7-Heptadecene, 17-chloro-
7-Heptadecene, 17-chloro-
9,10-Secocholesta-5,7,10(19)-triene-3 π 25-diol
9,12-Octadecadienoyl chloride, (Z,Z)-
9-Octadecenoic acid, 2-(octadecyloxy)ethyl ester
Benzaldehyde, 2,5-bis[(trimethylsilyloxy)-

Benzene, (1-bromoethyl)-
Benzene, (1-butylheptyl)-
Benzene, (1-butylpentyl)-
Benzene, (1-ethyloctyl)-
Benzene, (1-methylhexadecyl)-
Benzene, (1-methylnonyl)-
Benzene, (1-pentylhexyl)-
Benzene, (2-nitropropyl)-
Benzene, 1,1'-(1-methyl-1,2-ethanediyl)bis-
Benzene-1,2-dicarbonitrile, 3,6-bis(3-phenylpropoxy)-
Benzenebutanenitrile
Benzenebutanoic acid, .beta.-methyl-
Bicyclo[4.1.0]heptane, 7-bicyclo[4.1.0]hept-7-ylidene-
Camphorsulfonic acid
Carnegine
Chloroacetic acid, octyl ester
Chloroacetic acid, octyl ester
Chloroacetic acid, octyl ester
cis-9,10-Epoxyoctadecan-1-ol
Cyclododecane
Ethaneperoxy acid, 1-cyano-1-[2-(2-phenyl-1,3-dioxolan-2-yl)ethyl]pentyl ester
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
Formic acid, 8-formyloxymethyl-2-isopropyl-5-methyl-bicyclo[3.2.1]oct-6-en-6-ylmethyl ester
Heptane, 1,1'-oxybis-
Hexane, 3,4-diphenyl-
Indan-1,2-dione, 4-methyl-
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
N-Chloro-2-methyl-2-phenylaziridine
Octaethylene glycol monododecyl ether
Pent-1-yne, 5-benzyloxy-
Phenol, 2,4-bis(1,1-dimethylethyl)-
Phenol, 2,6-bis(1,1-dimethylethyl)-4-ethyl-
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
Phenol, 4,4'-(1,2-diethyl-1,2-ethanediyl)bis-
Phenol, 4,4'-(1,2-diethyl-1,2-ethanediyl)bis-
Phthalic acid, 6-ethyl-3-octyl butyl ester
Pregnan-20-one, 3,11,21-tris[(trimethylsilyl)oxy]-, (3 π 5 π 11 π -
Pyrrolidine, 1-[4-(4-chlorophenyl)-3-phenyl-2-butenyl]-

FIELD INFILL

Sample AA

2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl-4a,7a-epoxy-5H-cyclopenta[a]cyclopropa
4-Hydroxymandelic acid, ethyl ester, di-(O-t-butyltrimethylsilyl)
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7-Acetyl-6-ethyl-1,1,4,4-tetramethyltetralin
Benzoic acid, 2-hydroxy-, propyl ester
Benzoylamide, 2-amino-5-hydroxy-N-[2-chloro-3-pyridyl]-
Decanoic acid, octadecyl ester
Glycine, N-(2-hydroxybenzoyl)-
Homomenthyl salicylate
Propenal, 3-hydroxy-2-(4-pyridyl)-
Santolina triene

Sample BB

7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7-Acetyl-6-ethyl-1,1,4,4-tetramethyltetralin
Benzoic acid, 2-hydroxy-, propyl ester
Butanamide, N-methyl-4-(methylthio)-2-(2,2-dimethylpropylidene)amino-
Curan-17-oic acid, 19,20-dihydroxy-, methyl ester, (19S)-
Cyclopentanone, 2-acetyl-3,3-dimethyl-2-(3-methylbutyl)-
E-7-Tetradecenol
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Homomenthyl salicylate
Hexestrol
Phthalic acid, isobutyl tridec-2-yn-1-yl ester

Sample CC

2,5-di-tert-Butyl-1,4-benzoquinone
4-Hydroxymandelic acid, ethyl ester, di-(O-t-butyl)dimethylsilyl
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
Homosalate

Sample DD

6,7-Dimethylthieno[2,3-b]quinolin-3-ylamine
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
Benzaldehyde, 2,5-bis[(trimethylsilyloxy)-
Cyclopentanone, 2-acetyl-3,3-dimethyl-2-(3-methylbutyl)-
Ethanone, 1-(5,6,7,8-tetrahydro-2,8,8-trimethyl-4H-cyclohepta[b]furan-5-yl)-
Homosalate

Sample EE

2(1H)-Benzocyclooctenone, decahydro-4a-methyl-, trans(-)-
2,7-Octanedione, 4,4-dimethyl-3-[2-(1-hydroxy-1-methylethyl)-3-methyl-3-butenylidene]-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
Decanoic acid, octadecyl ester
E-7-Tetradecenol
Hexestrol
Homosalate
Santolina triene
Trispiro[4.2.4.2.4.2.]heneicosane

Sample FF

1,10-Dichlorodecane
10,18-Bisnorabieta-8,11,13-triene
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl-4a,7a-epoxy-5H-cyclopenta[a]cyclopropa
3,19;14,15-Diepoxypregnan-20-one, 3,11,18-triacetoxy-
4-Amino-2-(p-tolyl)-5H-(1)benzopyrano(4,3-d)pyrimidin-5-one
4-Formyl-3,5-dimethyl-1H-pyrrole-2-carbonitrile
5-Bromo-1-morpholin-4-ylmethyl-1H-indole-2,3-dione
5H-2,3-Benzodiazepine-5-carbohydrazide, 7,8-dimethoxy-1,4-dimethyl-
-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7-Methoxy-2,2,4,8-tetramethyltricyclo[5.3.1.0(4,11)]undecane
9-Octadecenethioic acid, 12-hydroxy-, S-t-butyl ester
Astaxanthin
Erythro-9,10-dihydroxyoctadecanoic acid

Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Ethanone, 1-(5,6,7,8-tetrahydro-2,8,8-trimethyl-4H-cyclohepta[b]furan-5-yl)-
Fluorometholone
Homosalate
Phenol, 2,4,6-tris(1,1-dimethylethyl)-
Phenol, 4,4'-(1,2-diethyl-1,2-ethanediyl)bis-
Rhodopin
Santolina triene
Serotonin

Sample GG

.alpha.-Methylfentanyl
13-Bromotetradecanoic acid
2-(3,7-Dimethyl-octa-2,6-dienyl)-1,4-dimethoxy-benzene
2,2,4-Trimethyl-3-(3,8,12,16-tetramethyl-heptadeca-3,7,11,15-tetraenyl)-cyclohexanol
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
7-Methoxy-2,2,4,8-tetramethyltricyclo[5.3.1.0(4,11)]undecane
Cholestan-3-one, 4,4-dimethyl-, cyclic 1,2-ethanediyl acetal, (5 π -
Decanoic acid, octadecyl ester
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Homosalate
Pyrrolidine, 1-[4-(4-chlorophenyl)-3-phenyl-2-butenyl]-

RETENTION TIME (min)	PEAK AREA	CALCULATED CONCENTRATION PPM (mg/kg)
21.857	2.90E+07	0.59
35.007	1.80E+07	0.36
22.843	1.20E+07	0.24
33.886	1.40E+07	0.28
36.068	1.51E+07	0.30
20.893	1.15E+07	0.23
9.925	1.32E+07	0.27
26.517	1.61E+07	0.33
29.292	1.12E+07	0.23
20.441	3.49E+07	0.71
21.563	7.37E+07	1.49
19.023	1.90E+07	0.38
19.56	2.32E+07	0.47
20.046	1.11E+07	0.22
17.963	2.43E+07	0.49
19.784	1.58E+07	0.32
22.055	2.38E+07	0.48
15.923	1.27E+07	0.26
22.491	2.88E+07	0.58
18.477	2.36E+07	0.48
33.215	2.22E+07	0.45
28.171	5.07E+07	1.02
25.741	8.05E+07	1.63
15.546	1.04E+07	0.21
31.063	5.88E+07	1.19
18.361	1.06E+07	0.21
22.237	1.31E+07	0.27
27.72	1.64E+07	0.33
22.63	2.78E+07	0.56
22.814	2.13E+07	0.43
27.896	1.51E+07	0.31
24.021	2.15E+07	0.43
24.672	1.30E+08	2.63
24.854	3.51E+07	0.71
20.285	2.21E+07	0.45
20.61	1.86E+07	0.38
21.114	2.06E+07	0.42
19.417	4.01E+07	0.81
19.974	3.73E+07	0.75
19.889	1.74E+07	0.35
28.888	4.10E+07	0.83
18.032	2.50E+07	0.50
21.261	3.23E+08	6.52
18.607	1.12E+07	0.23
18.858	1.35E+07	0.27
30.198	3.28E+07	0.66
19.283	2.32E+07	0.47

25.512	2.02E+07	0.41
30.537	5.43E+07	1.10
26.088	1.83E+07	0.37
20.159	8.13E+07	1.64
23.469	3.23E+07	0.65
18.546	1.59E+07	0.32
22.163	3.60E+07	0.73
28.067	2.52E+07	0.51
18.22	2.87E+07	0.58
24.266	9.00E+07	1.82
30.001	2.15E+07	0.43
32.11	1.41E+07	0.29
27.916	1.07E+07	0.22
25.942	4.62E+07	0.93
19.726	1.61E+07	0.33
16.712	4.40E+08	8.89
20.551	2.54E+07	0.51
21.001	4.08E+07	0.82

19.967	8.06E+07	1.69
19.4	4.61E+07	0.96
39.873	3.02E+07	0.63
35.657	1.07E+07	0.22
35.672	1.05E+07	0.22
33.861	3.40E+07	0.71
33.894	1.84E+07	0.39
20.046	1.69E+07	0.35
20.101	1.73E+07	0.36
20.177	2.36E+07	0.49
20.377	2.15E+07	0.45
20.808	1.33E+07	0.28
20.82	1.37E+07	0.29
20.863	3.19E+07	0.67
20.895	3.80E+07	0.79
20.95	1.36E+07	0.29
21.006	9.47E+07	1.98
21.084	1.01E+07	0.21
21.114	3.11E+07	0.65
21.162	1.38E+07	0.29
21.189	1.82E+07	0.38
21.466	1.61E+07	0.34
21.654	7.01E+07	1.47
21.706	3.76E+07	0.79
21.761	2.40E+07	0.50
22.093	2.80E+07	0.59
22.214	2.36E+07	0.49
22.293	1.62E+07	0.34
22.444	4.12E+07	0.86
22.703	1.95E+07	0.41
22.738	2.18E+07	0.45
22.794	2.43E+07	0.51
22.867	1.81E+07	0.38
22.902	4.04E+07	0.85
22.937	3.00E+07	0.63

22.976	1.97E+07	0.41
22.998	2.19E+07	0.46
23.014	1.48E+07	0.31
23.127	3.74E+07	0.78
23.297	4.99E+07	1.04
23.418	3.60E+07	0.75
23.771	3.06E+07	0.64
23.935	2.65E+07	0.55
23.953	1.55E+07	0.33
23.98	3.25E+07	0.68
24.25	2.07E+07	0.43
24.266	1.48E+07	0.31
24.371	3.95E+07	0.83
24.398	2.29E+07	0.48
24.505	3.85E+07	0.81
24.956	4.04E+07	0.84
25.021	1.34E+07	0.28
25.04	1.75E+07	0.37
25.086	3.51E+07	0.73
25.446	4.00E+07	0.84
25.508	3.32E+07	0.70
25.611	1.87E+07	0.39
25.648	1.60E+07	0.33
25.739	3.37E+07	0.70
25.788	2.93E+07	0.61
25.815	2.13E+07	0.45
26.071	1.83E+07	0.38
26.095	2.39E+07	0.50
26.131	3.40E+07	0.71
26.345	2.09E+07	0.44
26.5	2.13E+07	0.44
27.149	1.95E+07	0.41
27.335	3.22E+07	0.67
20.434	3.70E+07	0.77
22.037	4.78E+07	1.00
22.163	4.12E+07	0.86
23.253	2.28E+07	0.48
23.272	2.45E+07	0.51
18.854	1.73E+07	0.36
22.372	1.36E+08	2.85
26.57	1.09E+08	2.27
20.616	4.29E+07	0.90
22.846	3.18E+07	0.66
23.217	7.72E+07	1.62
32.456	4.35E+07	0.91
21.981	5.30E+07	1.11
22.259	2.21E+07	0.46
22.278	1.40E+07	0.29
23.506	2.61E+07	0.55
23.528	3.70E+07	0.77
24.525	4.04E+07	0.84
24.598	1.55E+07	0.32
24.709	2.13E+07	0.45
24.774	5.64E+07	1.18
25.006	1.97E+07	0.41

25.581	3.23E+07	0.68
26.482	1.13E+07	0.24
26.785	1.34E+07	0.28
27.01	3.81E+07	0.80
27.03	1.27E+07	0.26
27.378	1.14E+07	0.24
27.402	1.31E+07	0.27
27.532	1.87E+07	0.39
27.675	1.30E+07	0.27
27.737	1.77E+07	0.37
30.748	1.79E+07	0.37
25.886	1.10E+08	2.29
20.566	1.84E+07	0.38
27.313	2.29E+07	0.48
28.044	3.26E+07	0.68
6.784	1.36E+07	0.28
30.199	4.65E+07	0.97
30.221	1.87E+07	0.39
31.755	5.38E+07	1.13
26.882	1.73E+07	0.36
26.914	8.84E+07	1.85
15.921	1.17E+07	0.25
24.339	3.51E+07	0.73
24.74	2.83E+07	0.59
27.989	1.34E+07	0.28
26.845	2.20E+07	0.46
25.168	6.04E+07	1.26
25.186	2.42E+07	0.51
25.206	5.45E+07	1.14
16.51	5.41E+07	1.13
25.922	2.91E+07	0.61
19.737	2.41E+08	5.04
19.019	3.74E+07	0.78
26.716	1.74E+07	0.36
26.826	4.91E+07	1.03
27.602	7.64E+07	1.60
27.255	2.74E+07	0.57
27.896	1.00E+07	0.21
23.631	8.34E+07	1.74
26.627	3.12E+07	0.65
23.159	1.50E+07	0.31
31.384	1.84E+07	0.38
31.06	1.49E+08	3.12
22.959	1.38E+07	0.29
21.43	1.40E+07	0.29
23.685	3.08E+07	0.64
24.472	2.30E+07	0.48
25.772	1.53E+07	0.32
24.138	4.44E+07	0.93
24.303	1.73E+07	0.36
19.491	2.46E+07	0.52

20.543	4.21E+07	0.88
31.367	1.05E+07	0.22
26.407	5.19E+07	1.09
27.432	3.94E+07	0.82
27.453	2.77E+07	0.58
26.218	1.41E+08	2.95
22.537	1.25E+07	0.26
22.633	1.29E+08	2.70
22.683	1.71E+07	0.36
22.724	1.53E+07	0.32
22.816	4.77E+07	1.00
23.037	2.03E+07	0.43
23.356	5.78E+07	1.21
23.475	1.88E+07	0.39
23.585	2.06E+07	0.43
23.723	2.79E+07	0.58
24.093	1.92E+07	0.40
24.158	3.88E+07	0.81
24.194	3.40E+07	0.71
24.231	1.74E+07	0.36
24.287	1.93E+07	0.40
24.571	4.37E+07	0.91
24.619	2.23E+07	0.47
24.633	2.54E+07	0.53
24.655	5.57E+07	1.16
24.836	3.03E+07	0.63
24.855	2.43E+07	0.51
24.877	6.93E+07	1.45
25.334	1.61E+08	3.36
25.482	1.30E+07	0.27
25.539	2.11E+07	0.44
25.553	1.81E+07	0.38
25.627	2.05E+07	0.43
25.666	2.37E+07	0.50
25.711	2.98E+07	0.62
30.71	1.08E+07	0.22
28.892	4.52E+07	0.94
30.675	1.40E+07	0.29
28.375	1.15E+08	2.41
32.114	1.21E+07	0.25
23.056	4.28E+07	0.89
24.419	5.05E+07	1.06
19.146	1.64E+08	3.43
20.151	2.28E+07	0.48
20.454	2.94E+07	0.62
21.743	1.57E+07	0.33
21.84	1.43E+08	3.00
22.022	3.91E+07	0.82
23.235	2.94E+07	0.62
23.747	1.78E+07	0.37
24.025	1.05E+08	2.19
24.984	1.81E+07	0.38

25.279	2.05E+07	0.43
27.722	1.38E+07	0.29
28.871	4.19E+07	0.88
22.489	6.41E+07	1.34
27.827	6.82E+07	1.43
17.96	1.37E+07	0.29
26.677	4.50E+07	0.94
26.698	1.87E+07	0.39
27.917	1.62E+07	0.34
21.449	1.46E+07	0.30
19.249	5.59E+07	1.17
19.877	3.11E+07	0.65
25.114	1.23E+07	0.26
23.454	3.80E+07	0.79
23.55	3.84E+07	0.80
25.06	2.41E+07	0.50
26.315	2.44E+07	0.51
26.735	1.63E+07	0.34
26.756	2.69E+07	0.56
27.049	2.82E+07	0.59
27.089	1.41E+07	0.29
27.122	1.57E+07	0.33
27.206	7.65E+07	1.60
27.289	1.89E+07	0.39
27.497	2.41E+07	0.50
27.693	1.26E+07	0.26
16.378	1.51E+07	0.32
18.677	5.15E+07	1.08
11.992	3.15E+07	0.66
22.773	4.45E+07	0.93
28.14	9.21E+07	1.93
30.278	2.02E+07	0.42
30.305	1.56E+07	0.33
30.536	7.70E+07	1.61
12.367	8.01E+07	1.68
21.785	2.09E+07	0.44
20.286	6.89E+07	1.44
21.135	1.54E+07	0.32
21.948	3.68E+07	0.77
22.889	1.99E+07	0.42
23.086	5.30E+07	1.11
29.768	1.78E+07	0.37
23.872	1.46E+08	3.06
24.755	3.00E+07	0.63
25.943	2.35E+07	0.49
21.56	1.57E+08	3.28
27.556	1.26E+07	0.26
0.751	2.94E+07	0.62
32.753	3.57E+07	0.75
25.262	1.96E+07	0.41
29.996	1.77E+07	0.37
32.093	2.13E+07	0.45
26.422	5.78E+07	1.21
27.767	1.28E+07	0.27

14.483	6.99E+07	1.46
23.806	5.06E+07	1.06
23.823	2.52E+07	0.53
28.01	1.45E+07	0.30
35.868	1.81E+07	0.38
21.287	6.06E+08	12.68
27.1	1.95E+07	0.41
27.877	1.17E+07	0.24
28.211	1.66E+07	0.35
28.238	2.04E+07	0.43
22.131	3.14E+07	0.66
22.185	2.77E+07	0.58
22.237	2.42E+07	0.51
22.327	2.81E+07	0.59
25.972	1.28E+08	2.67
16.709	4.56E+08	9.53
19.48	1.10E+07	0.23
22.552	2.07E+07	0.43
20.841	1.52E+07	0.32

20.424	2.15E+07	0.42
17.955	2.18E+07	0.43
19.879	1.59E+07	0.31
21.846	9.43E+07	1.84
29.072	2.18E+07	0.43
29.11	1.22E+07	0.24
29.337	1.91E+07	0.37
29.383	2.57E+07	0.50
29.458	2.26E+07	0.44
29.519	2.55E+07	0.50
29.667	1.27E+07	0.25
29.962	1.06E+07	0.21
30.098	1.71E+07	0.33
30.312	1.92E+07	0.37
30.366	4.06E+07	0.80
30.538	8.75E+07	1.71
30.726	4.93E+07	0.96
30.808	1.87E+07	0.37
30.828	1.56E+07	0.30
30.937	1.52E+07	0.30
31.194	3.39E+07	0.66
31.214	1.69E+07	0.33
31.331	1.91E+07	0.37
31.358	2.98E+07	0.58
31.419	2.35E+07	0.46
31.442	2.19E+07	0.43
31.763	3.98E+07	0.78
31.839	2.06E+07	0.40
31.907	3.01E+07	0.59
32.127	4.35E+07	0.85
32.175	3.74E+07	0.73
32.616	2.33E+07	0.46
32.724	1.90E+07	0.37

32.827	7.98E+07	1.56
33.58	5.17E+07	1.01
33.942	3.90E+07	0.76
34.539	4.31E+07	0.84
34.628	7.80E+07	1.53
34.905	4.47E+07	0.87
35.008	4.67E+07	0.91
35.399	4.25E+07	0.83
35.714	2.78E+07	0.54
36.109	2.24E+07	0.44
36.18	6.85E+07	1.34
36.377	2.03E+07	0.40
36.44	2.70E+07	0.53
36.534	4.97E+07	0.97
36.646	4.30E+07	0.84
36.8	4.83E+07	0.95
36.954	3.20E+07	0.63
37.102	4.11E+07	0.80
37.161	2.56E+07	0.50
37.346	1.41E+08	2.76
37.456	2.39E+07	0.47
37.547	1.83E+07	0.36
37.764	4.91E+07	0.96
37.785	2.07E+07	0.41
37.821	1.77E+07	0.35
37.877	4.39E+07	0.86
37.949	1.92E+07	0.38
38.28	3.91E+07	0.76
38.314	5.03E+07	0.98
38.613	1.32E+07	0.26
16.743	2.34E+07	0.46
27.561	1.64E+07	0.32
22.623	7.01E+07	1.37
26.748	5.62E+07	1.10
29.757	2.20E+07	0.43
31.271	1.46E+07	0.29
32.082	2.44E+07	0.48
32.276	2.67E+07	0.52
33.683	2.34E+07	0.46
33.846	3.46E+07	0.68
33.97	2.25E+07	0.44
34.144	3.01E+07	0.59
34.159	5.24E+07	1.02
34.199	2.54E+07	0.50
34.214	3.69E+07	0.72
34.289	4.18E+07	0.82
35.032	4.41E+07	0.86
35.67	2.31E+07	0.45
35.689	4.02E+07	0.79
35.908	2.30E+07	0.45
35.984	2.14E+07	0.42
36.017	2.12E+07	0.41
36.478	1.98E+07	0.39
36.514	1.82E+07	0.36
36.595	3.99E+07	0.78

37.198	5.28E+07	1.03
37.216	7.95E+07	1.55
37.25	3.75E+07	0.73
37.308	3.88E+07	0.76
37.472	4.30E+07	0.84
37.858	2.09E+07	0.41
20.856	6.14E+07	1.20
22.896	3.04E+07	0.60
28.128	2.41E+07	0.47
33.893	2.66E+07	0.52
34.767	3.22E+07	0.63
36.497	3.45E+07	0.68
29.546	1.79E+07	0.35
29.629	1.65E+07	0.32
30.498	4.14E+07	0.81
31.463	1.68E+07	0.33
32.448	5.35E+07	1.05
32.559	2.26E+07	0.44
32.577	2.20E+07	0.43
33.001	2.62E+07	0.51
33.313	3.20E+07	0.63
33.386	5.45E+07	1.07
33.648	1.84E+07	0.36
33.875	3.87E+07	0.76
33.911	3.06E+07	0.60
34.379	2.39E+07	0.47
34.507	5.26E+07	1.03
34.968	5.83E+07	1.14
35.298	5.60E+07	1.09
36.459	2.46E+07	0.48
30.634	1.33E+08	2.59
32.031	3.29E+07	0.64
35.626	1.76E+07	0.34
22.375	5.63E+07	1.10
19.649	2.06E+07	0.40
30.869	3.96E+07	0.78
33.277	3.98E+07	0.78
33.425	4.50E+07	0.88
33.697	3.02E+07	0.59
33.72	3.47E+07	0.68
34.069	3.28E+07	0.64
34.084	2.98E+07	0.58
34.346	2.99E+07	0.59
34.361	3.26E+07	0.64
34.455	9.51E+07	1.86
34.471	5.74E+07	1.12
34.583	6.31E+07	1.23
34.675	7.60E+07	1.49
34.731	3.90E+07	0.76
34.747	2.20E+07	0.43
34.825	5.74E+07	1.12
34.874	2.91E+07	0.57

35.523	3.35E+07	0.65
35.602	3.87E+07	0.76
35.956	5.28E+07	1.03
36.037	4.06E+07	0.80
36.127	3.21E+07	0.63
36.239	4.38E+07	0.86
36.294	5.62E+07	1.10
36.331	4.49E+07	0.88
36.422	3.27E+07	0.64
36.569	3.28E+07	0.64
36.616	2.42E+07	0.47
36.683	3.60E+07	0.70
36.839	2.93E+07	0.57
36.858	3.21E+07	0.63
36.885	6.01E+07	1.17
37.279	3.59E+07	0.70
37.508	2.57E+07	0.50
37.805	2.11E+07	0.41
37.839	2.07E+07	0.40
37.969	2.14E+07	0.42
38.009	4.50E+07	0.88
38.242	4.50E+07	0.88
39.205	5.88E+07	1.15
21.341	1.66E+07	0.32
31.537	3.17E+07	0.62
31.821	1.51E+07	0.30
32.097	2.71E+07	0.53
32.369	4.64E+07	0.91
32.486	4.12E+07	0.81
32.752	4.47E+07	0.87
32.893	4.51E+07	0.88
33.057	3.09E+07	0.60
33.194	6.58E+07	1.29
33.254	5.18E+07	1.01
34.796	6.19E+07	1.21
34.861	2.36E+07	0.46
35.073	4.79E+07	0.94
35.778	1.58E+07	0.31
36.067	6.00E+07	1.17
36.698	3.58E+07	0.70
24.361	1.08E+07	0.21
29.978	1.79E+07	0.35
30.022	3.76E+07	0.74
21.556	1.22E+08	2.38
29.733	3.90E+07	0.76
29.218	3.05E+07	0.60
24.549	2.73E+07	0.53
24.634	6.77E+07	1.32
34.012	3.86E+07	0.75
37.714	2.60E+07	0.51
28.152	6.44E+07	1.26
28.993	1.38E+07	0.27
30.174	6.12E+07	1.20

30.257	1.42E+07	0.28
30.273	1.25E+07	0.24
30.404	4.00E+07	0.78
30.916	3.05E+07	0.60
30.956	2.11E+07	0.41
31.235	3.71E+07	0.72
31.292	4.26E+07	0.83
31.564	2.39E+07	0.47
31.616	1.99E+07	0.39
31.638	2.18E+07	0.43
31.713	1.65E+07	0.32
31.804	2.16E+07	0.42
31.931	1.54E+07	0.30
32.054	2.61E+07	0.51
32.235	3.02E+07	0.59
32.325	2.33E+07	0.46
32.531	3.31E+07	0.65
32.689	8.63E+07	1.69
32.705	3.32E+07	0.65
32.777	3.31E+07	0.65
32.804	3.86E+07	0.75
32.951	1.30E+08	2.55
33.022	1.93E+07	0.38
33.982	4.22E+07	0.82
34.104	2.36E+07	0.46
21.255	1.17E+08	2.30
19.729	6.81E+07	1.33
29.599	1.99E+07	0.39
30.062	2.03E+07	0.40
30.23	2.82E+07	0.55
24.567	1.56E+07	0.31
29.775	2.47E+07	0.48
23.044	2.49E+07	0.49
29.571	1.55E+07	0.30
30.984	2.09E+07	0.41
31.783	2.06E+07	0.40
32.509	3.62E+07	0.71
31.599	3.75E+07	0.73
35.572	5.63E+07	1.10
30.773	3.14E+07	0.61
31.985	4.60E+07	0.90
31.389	2.76E+07	0.54
31.655	1.75E+07	0.34
31.692	3.62E+07	0.71
33.037	3.33E+07	0.65
33.073	2.16E+07	0.42
33.173	4.76E+07	0.93
38.115	4.33E+07	0.85
17.236	1.11E+07	0.22
28.06	4.57E+07	0.89
30.895	1.17E+07	0.23
35.477	6.00E+07	1.17
35.799	3.43E+07	0.67

36.358	2.85E+07	0.56
37.058	3.52E+07	0.69
37.661	3.88E+07	0.76
38.152	1.32E+07	0.26
38.171	1.52E+07	0.30
31.051	1.74E+08	3.40
19.402	5.19E+07	1.02
19.485	1.56E+07	0.30
20.487	1.27E+07	0.25
20.544	2.78E+07	0.54
21.954	1.74E+07	0.34
22.293	1.13E+07	0.22
25.57	1.53E+07	0.30
29.483	1.05E+07	0.21
33.482	8.15E+07	1.59
33.514	1.91E+08	3.74
35.166	1.58E+08	3.08
35.189	2.66E+08	5.21
36.259	5.96E+07	1.17
36.719	3.39E+07	0.66
36.747	7.87E+07	1.54
38.382	2.63E+07	0.52
38.469	4.66E+07	0.91
38.5	9.89E+07	1.93
38.633	1.45E+07	0.28
38.667	1.55E+07	0.30
39.336	1.43E+07	0.28
39.353	2.83E+07	0.55
35.839	6.44E+07	1.26
37.035	3.55E+07	0.70
25.346	7.01E+07	1.37
28.893	4.12E+07	0.81
31.728	1.76E+07	0.34
33.332	5.84E+07	1.14
34.702	2.98E+07	0.58
35.89	7.42E+07	1.45
35.926	4.11E+07	0.80
29.407	2.05E+07	0.40
30.203	1.67E+07	0.33
32.255	2.15E+07	0.42
27.532	4.18E+07	0.82
30.384	1.96E+07	0.38
25.746	1.47E+07	0.29
25.698	1.76E+07	0.34
25.78	2.46E+07	0.48
26.193	2.70E+07	0.53
26.212	3.01E+07	0.59
28.423	3.83E+07	0.75
24.019	4.87E+07	0.95
26.631	7.43E+07	1.45
22.817	6.42E+07	1.26
28.439	2.55E+07	0.50
40.493	5.98E+07	1.17
37.924	2.65E+07	0.52
18.259	1.23E+07	0.24

19.964	7.66E+07	1.50
25.954	3.80E+07	0.74
21.148	2.89E+07	0.57
27.033	4.66E+07	0.91
23.228	9.20E+07	1.80
33.772	2.85E+07	0.56
35.338	2.63E+07	0.51
36.977	1.86E+07	0.36
37.142	3.97E+07	0.78
30.294	1.37E+07	0.27
36.395	3.57E+07	0.70
37.574	6.50E+07	1.27
38.578	1.51E+07	0.30
38.595	1.26E+07	0.25
22.488	8.64E+07	1.69
29.813	1.08E+07	0.21
31.157	1.58E+07	0.31
31.859	1.51E+07	0.29
31.95	2.46E+07	0.48
33.659	3.42E+07	0.67
33.822	7.65E+07	1.50
34.402	2.68E+07	0.52
19.143	5.93E+07	1.16
20.45	1.72E+07	0.34
21.005	6.58E+07	1.29
23.862	8.16E+07	1.60
23.936	1.34E+07	0.26
24.76	2.43E+07	0.48
25.987	2.90E+07	0.57
19.279	4.35E+07	0.85
34.126	2.09E+07	0.41
32.152	1.68E+07	0.33
32.3	3.04E+07	0.59
32.415	4.14E+07	0.81
32.594	2.00E+07	0.39
33.094	3.98E+07	0.78
33.148	6.67E+07	1.30
29.83	1.27E+07	0.25
33.751	4.39E+07	0.86
24.741	1.54E+07	0.30
28.974	1.24E+07	0.24
20.277	4.63E+07	0.91
21.362	3.23E+07	0.63
24.869	5.97E+07	1.17
29.151	1.85E+07	0.36
28.767	8.15E+07	1.59
39.388	1.08E+07	0.21
29.233	2.06E+07	0.40
22.175	3.55E+08	6.94
29.998	1.26E+07	0.25
31.51	1.76E+07	0.34
32.209	2.95E+07	0.58
34.04	3.34E+07	0.65
34.251	4.91E+07	0.96
34.271	2.14E+07	0.42

34.942	4.91E+07	0.96
36.001	3.98E+07	0.78
36.204	3.32E+07	0.65
36.995	5.53E+07	1.08
38.193	2.37E+07	0.46
29.021	2.39E+07	0.47
29.685	1.13E+07	0.22
31.14	2.08E+07	0.41
31.489	2.61E+07	0.51
31.879	3.38E+07	0.66
19.715	2.96E+07	0.58
23.075	4.10E+07	0.80
29.258	1.77E+07	0.35
29.277	3.32E+07	0.65
29.94	1.83E+07	0.36
37.692	1.59E+07	0.31
38.41	2.10E+07	0.41
38.09	4.92E+07	0.96
28.912	5.36E+07	1.05
20.634	2.24E+07	0.44
33.624	4.24E+07	0.83
34.32	4.48E+07	0.88
35.359	2.54E+07	0.50
35.42	2.69E+07	0.53
35.441	2.12E+07	0.41
35.455	3.35E+07	0.65
35.537	3.35E+07	0.65
35.641	4.51E+07	0.88
35.734	3.54E+07	0.69
35.763	3.04E+07	0.59
36.09	2.79E+07	0.55
36.932	3.18E+07	0.62
37.526	1.63E+07	0.32
37.628	2.93E+07	0.57
37.987	1.34E+07	0.26
35.372	3.78E+07	0.74

20.425	1.29E+07	0.28
20.865	3.37E+07	0.72
20.536	1.46E+07	0.31
35.982	2.95E+07	0.63
26.215	7.49E+07	1.60
31.368	2.39E+07	0.51
32.056	4.69E+07	1.00
32.204	2.02E+07	0.43
33.033	3.83E+07	0.82
36.004	8.09E+07	1.72
37.234	3.87E+07	0.82
32.462	2.38E+07	0.51
28.06	1.08E+07	0.23
27.064	2.26E+07	0.48
23.078	5.52E+07	1.18
24.537	2.00E+07	0.43
19.878	1.83E+07	0.39

23.859	1.25E+08	2.65
37.21	7.58E+07	1.62
37.304	2.29E+07	0.49
22.896	1.67E+07	0.36
25.063	2.93E+07	0.62
33.548	3.05E+07	0.65
31.875	1.80E+07	0.38
26.781	1.47E+07	0.31
27.471	4.52E+07	0.96
23.497	1.88E+07	0.40
23.403	1.28E+07	0.27
27.524	2.36E+07	0.50
28.37	1.94E+07	0.41
31.117	3.58E+07	0.76
32.146	5.59E+07	1.19
32.952	8.28E+07	1.76
32.983	5.32E+07	1.13
33.078	2.74E+07	0.58
33.569	5.24E+07	1.12
34.209	4.25E+07	0.91
34.668	4.81E+07	1.02
35.181	7.60E+07	1.62
35.721	2.01E+07	0.43
35.828	9.82E+07	2.09
35.947	3.04E+07	0.65
36.512	3.45E+07	0.74
36.854	3.03E+07	0.65
37.159	3.09E+07	0.66
37.261	2.37E+07	0.51
37.377	3.89E+07	0.83
28.31	4.28E+07	0.91
33.99	1.69E+07	0.36
30.528	7.89E+07	1.68
24.745	4.81E+07	1.03
23.466	1.88E+07	0.40
29.129	2.85E+07	0.61
29.347	5.29E+07	1.13
29.607	3.06E+07	0.65
30.602	2.69E+07	0.57
30.769	2.27E+07	0.48
30.839	4.35E+07	0.93
30.949	4.64E+07	0.99
31.307	1.75E+07	0.37
31.398	2.02E+07	0.43
32.259	3.23E+07	0.69
34.562	4.09E+07	0.87
35.454	2.62E+07	0.56
37.436	2.35E+07	0.50
37.453	1.53E+07	0.33
38.263	2.27E+07	0.48
21.518	2.82E+08	6.01
27.193	5.59E+07	1.19
30.175	3.45E+07	0.73

28.798	1.33E+07	0.28
28.82	1.16E+07	0.25
28.907	1.82E+07	0.39
30.71	1.73E+07	0.37
31.989	6.23E+07	1.33
33.516	6.76E+07	1.44
33.528	2.39E+07	0.51
35.761	2.58E+07	0.55
36.207	5.19E+07	1.11
36.59	3.67E+07	0.78
36.753	3.92E+07	0.84
37.351	4.43E+07	0.94
24.916	1.61E+07	0.34
32.076	2.03E+07	0.43
32.101	2.92E+07	0.62
23.535	1.43E+07	0.30
40.24	2.63E+07	0.56
35.392	2.07E+07	0.44
34.935	2.17E+07	0.46
36.327	3.84E+07	0.82
30.555	6.68E+07	1.42
19.745	5.94E+07	1.27
24.596	3.44E+07	0.73
24.611	1.19E+07	0.25
24.827	1.04E+08	2.21
35.408	2.90E+07	0.62
35.603	2.65E+07	0.56
27.092	3.11E+07	0.66
24.954	4.18E+07	0.89
38.521	1.77E+07	0.38
34.966	2.10E+07	0.45
36.458	3.25E+07	0.69

36.869	2.00E+07	0.43
27.01	1.48E+07	0.31
25.987	9.45E+07	2.01
34.746	2.14E+07	0.46
34.908	2.99E+07	0.64
36.273	1.98E+07	0.42
36.715	2.77E+07	0.59
37.012	1.92E+07	0.41
31.049	8.68E+07	1.85
31.062	3.08E+07	0.66
31.08	4.37E+07	0.93
28.978	4.52E+07	0.96
33.22	3.37E+07	0.72
33.828	8.38E+07	1.79
34.431	1.30E+08	2.76
37.323	2.19E+07	0.47
30.376	1.02E+08	2.18
31.598	6.60E+07	1.41
34.609	3.61E+07	0.77
36.677	2.52E+07	0.54
36.699	1.52E+07	0.32
24.77	1.27E+07	0.27
31.944	3.31E+07	0.71
33.391	3.47E+07	0.74
33.437	4.58E+07	0.98
34.043	3.59E+07	0.76
35.289	2.37E+07	0.50
35.474	2.59E+07	0.55
35.492	1.48E+07	0.32
37.474	5.25E+07	1.12
37.832	2.44E+07	0.52
35.263	2.53E+07	0.54
35.553	2.57E+07	0.55
35.577	3.47E+07	0.74
36.352	3.23E+07	0.69
36.533	2.46E+07	0.52
37.416	2.09E+07	0.44
37.914	3.34E+07	0.71
23.376	2.77E+07	0.59
27.636	3.55E+07	0.76
26.762	1.69E+07	0.36
37.85	1.27E+07	0.27
24.129	4.91E+07	1.05
38.502	8.64E+07	1.84
34.28	3.87E+07	0.82
27.137	1.21E+07	0.26
13.055	2.02E+07	0.43
24.019	3.87E+07	0.82
22.62	3.79E+07	0.81
21.251	2.03E+08	4.31
27.032	2.39E+07	0.51
28.872	3.93E+07	0.84
25.621	2.14E+07	0.46
30.021	1.78E+09	37.86

22.377	1.70E+07	0.36
22.186	2.47E+09	52.63
19.966	5.19E+07	1.10
21.853	7.19E+07	1.53
28.142	3.22E+08	6.85
36.175	4.07E+07	0.87
33.773	5.29E+07	1.13
19.404	2.72E+07	0.58
20.149	3.98E+07	0.85
26.345	1.92E+07	0.41
26.56	1.27E+08	2.71
25.967	1.39E+08	2.95
30.283	3.32E+08	7.06
31.264	2.07E+07	0.44
31.497	2.94E+07	0.63
32.225	3.15E+07	0.67
33.142	7.46E+07	1.59
33.913	3.11E+07	0.66
34.877	4.00E+07	0.85
35.061	6.18E+07	1.32
35.54	2.35E+07	0.50
36.616	1.75E+07	0.37
36.991	1.62E+07	0.34
28.292	1.60E+07	0.34
29.571	1.85E+07	0.39
30.677	3.96E+07	0.84
30.745	3.01E+07	0.64
30.878	1.26E+07	0.27
30.898	1.60E+07	0.34
31.688	2.04E+07	0.43
32.596	1.56E+07	0.33
32.615	3.22E+07	0.69
32.641	5.21E+07	1.11
32.805	5.70E+07	1.21
32.885	2.52E+07	0.54
33.309	2.42E+07	0.52
33.328	2.63E+07	0.56
33.362	3.40E+07	0.72
33.412	1.93E+07	0.41
33.872	3.14E+07	0.67
33.903	1.69E+07	0.36
33.935	2.58E+07	0.55
34.069	6.86E+07	1.46
34.119	1.40E+07	0.30
34.639	4.72E+07	1.01
34.797	3.75E+07	0.80
34.992	3.56E+07	0.76
36.086	1.97E+07	0.42
36.126	2.02E+07	0.43
37.805	2.68E+07	0.57
25.04	2.63E+07	0.56
29.503	4.32E+07	0.92
29.551	1.94E+07	0.41
31.141	4.41E+07	0.94
31.284	1.50E+07	0.32

31.634	3.04E+07	0.65
31.667	2.95E+07	0.63
31.889	2.40E+07	0.51
31.91	2.11E+07	0.45
32.498	4.45E+07	0.95
32.522	5.12E+07	1.09
32.558	3.95E+07	0.84
32.684	3.28E+07	0.70
33.966	3.53E+07	0.75
34.765	3.47E+07	0.74
35.114	4.45E+07	0.95
35.702	3.58E+07	0.76
35.74	1.56E+07	0.33
22.487	1.85E+07	0.39
33.248	4.17E+07	0.89
34.249	2.51E+07	0.53
35.075	2.56E+07	0.54
35.24	4.58E+07	0.98
35.66	5.12E+07	1.09
35.905	4.45E+07	0.95
36.074	2.06E+07	0.44
36.239	3.81E+07	0.81
36.558	2.89E+07	0.62
36.659	2.80E+07	0.60
37.286	2.33E+07	0.50
37.614	3.88E+07	0.83
22.72	3.02E+07	0.64
19.136	2.32E+07	0.49
20.997	3.03E+07	0.65
23.953	1.21E+07	0.26
25.17	5.72E+07	1.22
25.324	7.87E+07	1.68
26.084	1.23E+07	0.26
26.108	1.32E+07	0.28
28.267	2.64E+07	0.56
29.004	3.00E+07	0.64
29.047	2.78E+07	0.59
29.463	6.55E+07	1.39
29.479	1.94E+07	0.41
29.631	4.34E+07	0.92
29.663	4.31E+07	0.92
31.202	6.78E+07	1.45
31.568	4.56E+07	0.97
31.753	9.69E+07	2.06
32.39	2.67E+08	5.68
33.172	7.54E+07	1.61
33.807	4.88E+07	1.04
34.453	1.60E+08	3.40
35.856	8.67E+07	1.85
26.397	9.55E+07	2.04
32.851	3.02E+07	0.64
23.224	7.27E+07	1.55
35.432	2.58E+07	0.55
37.591	1.87E+07	0.40
36.892	7.43E+07	1.58

34.319	3.66E+07	0.78
37.124	3.45E+07	0.74
20.285	3.42E+07	0.73
28.856	3.09E+07	0.66
31.46	5.50E+07	1.17
33.064	2.29E+07	0.49
33.658	3.99E+07	0.85
33.718	4.64E+07	0.99
35.637	3.25E+07	0.69
36.478	3.71E+07	0.79
36.788	4.70E+07	1.00
37.57	3.88E+07	0.83
30.455	1.88E+07	0.40
31.836	4.62E+07	0.98
32.709	3.59E+07	0.77
33.286	4.10E+07	0.87
33.634	3.61E+07	0.77
34.725	5.19E+07	1.11
34.822	2.79E+07	0.59
34.948	1.37E+07	0.29
36.636	2.85E+07	0.61
39.481	2.63E+07	0.56
28.926	1.59E+07	0.34
35.327	3.13E+07	0.67
36.823	3.86E+07	0.82
24.63	2.70E+07	0.57
29.292	1.53E+07	0.33
31.322	2.10E+07	0.45
31.344	3.43E+07	0.73
22.819	5.32E+07	1.13
27.259	1.50E+07	0.32
22.304	1.24E+07	0.26
28.044	5.74E+07	1.22
26.674	6.77E+07	1.44
26.808	2.73E+07	0.58
26.823	2.24E+07	0.48
26.843	2.78E+07	0.59
27.217	4.05E+07	0.86
27.584	2.77E+07	0.59
27.603	3.03E+07	0.65
26.625	1.00E+07	0.21
26.732	2.22E+07	0.47
27.438	6.20E+07	1.32
30.142	1.80E+07	0.38
38.54	4.97E+07	1.06
34.175	3.76E+07	0.80
32.774	4.15E+07	0.88
32.293	2.24E+07	0.48
32.74	3.49E+07	0.74
34.138	2.64E+07	0.56
35.353	2.06E+07	0.44
35.372	2.29E+07	0.49
37.783	2.60E+07	0.55
20.612	2.67E+07	0.57
33.678	4.23E+07	0.90

21.126	1.34E+07	0.29
34.846	3.05E+07	0.65
34.156	1.46E+07	0.31
36.298	1.46E+07	0.31
16.695	1.98E+08	4.23
32.168	3.45E+07	0.73
34.009	2.52E+07	0.54
35.308	2.45E+07	0.52
35.516	2.95E+07	0.63
36.107	2.17E+07	0.46
25.644	3.40E+07	0.72
37.679	2.29E+07	0.49
35.148	5.05E+07	1.08
36.415	8.48E+07	1.81
37.072	7.16E+07	1.53
37.094	3.96E+07	0.84
30.645	3.81E+07	0.81
30.803	4.10E+07	0.87
31.434	3.68E+07	0.78
31.521	2.03E+07	0.43
31.818	1.20E+07	0.25
27.291	8.37E+07	1.78
29.335	1.58E+07	0.34
31.178	3.30E+07	0.70
31.778	5.24E+07	1.12

20.473	4.68E+08	9.47
16.286	1.66E+07	0.33
29.98	7.64E+07	1.54
20.287	2.31E+07	0.47
24.261	1.37E+07	0.28
20.864	1.10E+07	0.22
20.154	2.07E+07	0.42
21.118	1.65E+07	0.33
21.554	3.72E+07	0.75
26.632	3.70E+07	0.75

21.271	5.51E+07	1.11
19.747	4.09E+07	0.83
21.84	4.54E+07	0.92
30.277	2.44E+07	0.49
32.396	1.22E+07	0.25
25.972	4.56E+07	0.92
17.84	2.34E+07	0.47
23.205	1.04E+08	2.10
23.857	1.04E+08	2.10
28.053	1.75E+07	0.35
13.853	1.09E+07	0.22
18.253	1.34E+07	0.27
28.748	1.29E+07	0.26
28.141	3.38E+07	0.68
24.559	4.81E+07	0.97

31.051	7.05E+07	1.42
22.174	1.10E+08	2.23
29.266	1.07E+07	0.22
20.999	2.86E+07	0.58
20.883	1.33E+07	0.27
25.199	3.21E+07	0.65
13.053	3.38E+07	0.68
26.186	6.48E+07	1.31
28.427	1.17E+07	0.24
24.129	1.05E+07	0.21
24.009	9.27E+07	1.87
25.334	8.97E+07	1.81
23.6	1.52E+07	0.31
27.031	2.46E+07	0.50
22.616	9.04E+07	1.83
24.634	9.41E+07	1.90
26.744	3.13E+07	0.63
16.719	5.85E+07	1.18
21.652	2.91E+08	5.88
19.965	2.73E+07	0.55
19.403	1.85E+07	0.37
28.877	1.65E+07	0.33
2.678	1.06E+07	0.21
32.079	1.58E+07	0.32
22.503	2.85E+07	0.58
22.027	1.69E+07	0.34
25.056	2.15E+07	0.44
25.72	1.07E+07	0.22
30.531	2.14E+07	0.43
24.862	8.82E+07	1.78
22.81	1.15E+08	2.31
26.408	1.55E+07	0.31
27.524	1.02E+07	0.21
27.537	1.43E+07	0.29
24.752	2.30E+07	0.46
13.238	1.30E+07	0.26

28.15	1.20E+07	0.24
21.66	1.30E+07	0.26
21.548	2.48E+07	0.50
17.772	1.60E+07	0.32
30.197	1.40E+07	0.28
28.751	1.25E+07	0.25
19.737	5.75E+07	1.15
24.557	1.83E+07	0.37
31.046	1.34E+07	0.27
31.056	1.61E+07	0.32
29.262	2.19E+07	0.44
13.051	8.98E+07	1.80
28.428	1.52E+07	0.30
24.014	3.46E+07	0.69
26.631	2.17E+07	0.44
26.736	2.61E+07	0.52
26.187	4.86E+07	0.97

23.207	2.93E+07	0.59
25.332	4.65E+07	0.93
22.616	2.42E+07	0.49
24.628	4.32E+07	0.87
21.25	3.40E+07	0.68
22.154	2.53E+08	5.07
28.865	3.55E+07	0.71
21.866	1.28E+07	0.26
30.528	3.89E+07	0.78
22.81	2.52E+07	0.50
24.861	4.58E+07	0.92
27.03	2.26E+07	0.45
27.529	2.36E+07	0.47
29.978	4.09E+07	0.82
18.252	1.07E+07	0.21
16.058	1.42E+07	0.28

21.222	1.44E+07	0.26
26.61	1.86E+07	0.34
22.065	1.19E+07	0.22
25.47	2.83E+07	0.52
21.542	1.36E+07	0.25
25.323	3.96E+07	0.73
20.983	1.07E+07	0.20
21.846	1.63E+07	0.30
20.232	1.08E+07	0.20
23.09	1.30E+07	0.24
21.65	2.06E+07	0.38
31.04	2.18E+07	0.40
26.586	1.45E+07	0.27
28.874	1.04E+07	0.19
24.529	1.26E+07	0.23
13.047	4.78E+07	0.88
19.089	2.77E+07	0.51
22.218	6.34E+07	1.16
24.627	2.09E+07	0.38
20.117	1.35E+07	0.25
22.523	1.29E+07	0.24
5.023	1.39E+07	0.26
25.978	1.71E+07	0.31

30.178	2.79E+07	0.51
30.521	1.79E+07	0.33
26.73	1.59E+07	0.29
24.863	1.44E+07	0.26
20.61	1.29E+07	0.24

20.431	7.07E+07	1.34
16.282	1.76E+07	0.33
25.562	4.74E+07	0.90
28.936	1.31E+07	0.25
29.211	2.23E+07	0.42
20.052	1.36E+07	0.26

9.352	2.05E+07	0.39
16.711	4.17E+07	0.79
19.728	7.17E+07	1.36
22.724	1.15E+07	0.22
24.735	3.15E+07	0.60
26.73	6.31E+07	1.20
23.474	2.35E+07	0.45
25.159	3.88E+07	0.74
28.771	1.06E+07	0.20
21.843	2.56E+07	0.49
15.338	1.02E+07	0.19
23.194	1.18E+08	2.24
25.945	6.97E+07	1.32
27.926	1.72E+07	0.33
24.345	1.86E+07	0.35
24.387	1.13E+07	0.21
7.95	1.19E+07	0.23
21.543	5.22E+07	0.99
32.201	1.79E+07	0.34
23.066	2.49E+07	0.47
23.587	1.18E+07	0.22
19.399	2.28E+07	0.43
27.765	1.38E+07	0.26
28.517	1.65E+07	0.31
19.956	2.26E+07	0.43
28.282	1.51E+07	0.29
30.525	4.38E+07	0.83
13.784	1.15E+07	0.22
25.66	1.47E+07	0.28
26.548	1.43E+07	0.27
23.426	1.18E+07	0.22
25.724	2.66E+07	0.50
27.172	1.30E+07	0.25
25.465	1.79E+07	0.34
31.33	2.18E+07	0.41
31.045	1.85E+08	3.51
11.894	2.41E+07	0.46
26.396	1.86E+07	0.35
24.438	1.18E+07	0.22
25.037	2.16E+07	0.41
27.199	1.07E+07	0.20
29.267	3.62E+07	0.69
22.608	9.10E+07	1.73
24.246	2.96E+07	0.56
23.998	1.58E+08	3.00
28.401	4.74E+07	0.90
26.623	6.39E+07	1.21
24.543	7.86E+07	1.49
26.171	1.42E+08	2.69

23.647	3.03E+07	0.58
25.32	1.70E+08	3.22
27.512	8.30E+07	1.57
24.621	1.63E+08	3.10
21.362	1.18E+07	0.22
23.919	1.03E+07	0.20
13.213	3.05E+07	0.58
21.243	6.00E+07	1.14
26.063	1.38E+07	0.26
28.863	4.39E+07	0.83
30.659	2.04E+07	0.39
28.047	3.00E+07	0.57
17.933	1.05E+08	1.99
20.543	1.28E+07	0.24
15.671	2.38E+07	0.45
28.141	5.41E+07	1.03
27.02	6.85E+07	1.30
20.134	2.22E+07	0.42
28.33	1.42E+07	0.27
31.735	1.66E+07	0.31
23.356	2.01E+07	0.38
20.264	1.39E+07	0.26
22.799	1.11E+08	2.10
24.855	1.61E+08	3.05
34.695	2.05E+07	0.39
9.007	1.12E+07	0.21
9.187	2.17E+07	0.41
22.15	2.07E+08	3.92
18.192	1.74E+07	0.33
32.079	1.70E+07	0.32
29.972	5.83E+07	1.11
28.729	1.53E+07	0.29
30.175	6.31E+07	1.20
30.371	3.06E+07	0.58
26.5	1.30E+07	0.25
22.483	2.44E+07	0.46
25.806	1.27E+07	0.24
27.302	4.29E+07	0.81
27.701	1.19E+07	0.22
27.861	1.79E+07	0.34
12.618	1.62E+07	0.31
2.552	3.31E+07	0.63
20.423	1.32E+07	0.25
28.892	1.68E+07	0.32

33.862	1.43E+07	0.29
21.547	2.12E+07	0.43
21.245	1.43E+07	0.29
22.217	1.57E+07	0.32
30.177	2.87E+07	0.58
30.377	1.74E+07	0.35
32.45	2.70E+07	0.55
13.044	2.68E+07	0.54
24.543	4.74E+07	0.96

31.049	7.76E+07	1.57
26.18	3.66E+07	0.74
26.726	2.42E+07	0.49
28.743	1.68E+07	0.34
24.01	3.65E+07	0.74
24.623	1.02E+08	2.07
19.096	1.66E+07	0.34
22.609	4.62E+07	0.94
26.741	2.87E+07	0.58
31.35	1.86E+07	0.38
31.741	3.86E+07	0.78
25.323	5.92E+07	1.20
13.237	1.26E+07	0.25
25.574	1.09E+07	0.22
25.714	1.13E+07	0.23
27.522	3.60E+07	0.73
30.523	1.95E+07	0.40
22.807	4.81E+07	0.97
24.857	8.14E+07	1.65
26.628	5.44E+07	1.10
27.02	3.93E+07	0.79
22.175	2.58E+07	0.52
29.996	1.32E+07	0.27
23.2	4.46E+07	0.90
30.682	2.96E+07	0.60

27.191	3.08E+07	0.40
19.865	4.05E+07	0.53
20.538	4.37E+07	0.57
25.793	5.50E+07	0.72
26.553	2.14E+07	0.28
19.39	1.72E+07	0.23
26.731	9.20E+07	1.21
20.869	2.01E+07	0.26
25.044	3.19E+07	0.42
30.688	3.50E+07	0.46
31.72	1.91E+07	0.25
21.97	1.56E+08	2.05
31.17	1.93E+07	0.25
15.519	2.71E+07	0.35
32.215	2.52E+07	0.33
21.545	1.01E+08	1.33
26.642	9.56E+07	1.25
23.483	1.00E+07	0.13
23.851	2.90E+08	3.81
21.838	1.48E+08	1.93
25.962	9.57E+07	1.25
23.393	1.34E+07	0.18
18.585	1.09E+07	0.14
17.873	7.44E+07	0.97
18.107	1.24E+07	0.16
23.207	1.28E+08	1.67
28.042	3.85E+07	0.50

21.445	1.65E+07	0.22
30.673	3.12E+07	0.41
24.12	2.18E+07	0.29
19.732	9.72E+07	1.27
30.38	2.45E+07	0.32
32.45	6.92E+07	0.91
18.033	8.19E+07	1.07
20.85	1.82E+07	0.24
31.069	1.20E+08	1.57
23.359	1.13E+07	0.15
33.2	1.37E+07	0.18
32.86	2.04E+07	0.27
13.043	1.60E+07	0.21
22.615	8.23E+07	1.08
28.747	1.37E+07	0.18
25.322	1.66E+08	2.17
24.003	1.08E+08	1.42
28.727	1.44E+07	0.19
24.626	1.19E+08	1.55
26.174	1.79E+08	2.35
28.404	5.04E+07	0.66
24.553	5.82E+07	0.76
27.52	8.96E+07	1.17
21.269	8.04E+07	1.05
31.35	3.70E+07	0.48
31.742	3.26E+07	0.43
17.947	1.37E+08	1.79
17.998	3.54E+07	0.46
10.281	1.95E+07	0.26
22.167	9.56E+08	12.53
20.448	2.70E+07	0.35
21.64	3.07E+08	4.02
18.296	1.46E+07	0.19
33.856	7.83E+07	1.03
26.521	1.94E+07	0.25
13.217	1.92E+07	0.25
20.605	1.47E+07	0.19
23.564	1.46E+07	0.19
22.943	1.08E+07	0.14
23.008	1.32E+07	0.17
20.994	3.23E+07	0.42
23.073	5.38E+07	0.70
24.736	1.14E+07	0.15
24.758	1.24E+07	0.16
30.179	3.07E+07	0.40
22.804	1.16E+08	1.52
24.86	1.46E+08	1.92
27.024	8.36E+07	1.10
31.67	2.94E+07	0.38
28.91	2.64E+07	0.35
19.961	3.17E+08	4.16
21.118	1.87E+07	0.25
31.891	1.35E+07	0.18

26.822	1.41E+07	0.19
26.399	6.03E+07	0.79
27.424	1.70E+07	0.22
29.973	3.56E+08	4.66
23.58	2.78E+07	0.36
16.716	2.41E+07	0.32

20.446	1.98E+07	0.23
30.19	2.26E+07	0.26
20.536	5.93E+07	0.68
15.366	4.74E+07	0.54
19.863	1.14E+08	1.30
26.389	1.01E+07	0.11
20.27	2.87E+07	0.33
15.71	6.23E+07	0.71
24.746	1.35E+07	0.15
18.587	1.71E+07	0.19
8.017	2.29E+07	0.26
20.862	1.67E+07	0.19
21.971	1.67E+08	1.91
18.692	2.01E+07	0.23
21.001	3.16E+07	0.36
19.236	1.05E+07	0.12
25.165	2.20E+07	0.25
16.283	1.95E+07	0.22
21.549	8.18E+07	0.93
20.614	2.86E+07	0.33
22.493	2.72E+07	0.31
23.649	1.06E+07	0.12
21.262	5.41E+07	0.62
19.01	2.18E+07	0.25
21.835	5.55E+07	0.63
21.119	3.11E+07	0.35
17.875	2.96E+07	0.34
23.852	6.75E+07	0.77
28.137	5.27E+07	0.60
15.909	1.04E+07	0.12
17.858	7.63E+07	0.87
26.627	4.50E+07	0.51
15.525	1.61E+08	1.84
19.75	4.76E+08	5.43
31.044	6.73E+07	0.77
19.386	1.51E+07	0.17
23.01	1.63E+07	0.19
21.339	1.04E+07	0.12
13.215	2.72E+07	0.31
23.198	2.17E+08	2.48
13.045	2.10E+07	0.24
22.613	1.83E+08	2.09
26.736	4.54E+07	0.52
24.112	1.68E+07	0.19
26.173	1.34E+08	1.53
24.241	2.25E+07	0.26
24.002	1.68E+08	1.92

24.548	7.71E+07	0.88
28.41	1.99E+07	0.23
27.522	3.10E+07	0.35
24.625	1.73E+08	1.98
23.357	1.22E+07	0.14
20.112	1.63E+07	0.19
20.133	2.88E+07	0.33
10.294	3.00E+07	0.34
19.963	2.63E+08	3.00
22.372	5.37E+07	0.61
19.359	1.49E+07	0.17
25.587	2.80E+07	0.32
21.637	2.79E+08	3.19
17.942	8.23E+07	0.94
18.29	2.71E+07	0.31
19.291	1.40E+07	0.16
20.874	1.84E+07	0.21
26.513	1.37E+07	0.16
18.133	1.24E+07	0.14
21.443	2.93E+07	0.33
25.719	1.95E+07	0.22
24.859	1.40E+08	1.60
23.592	1.52E+07	0.17
23.076	2.71E+07	0.31
18.848	1.08E+07	0.12
22.807	2.16E+08	2.47
23.452	1.08E+07	0.12
27.023	4.33E+07	0.49
17.244	1.14E+07	0.13
25.929	3.24E+07	0.37
22.183	2.39E+08	2.73
25.324	1.56E+08	1.79
21.365	1.09E+07	0.12
16.72	3.97E+07	0.45

27.206	1.64E+07	0.21
28.903	1.77E+07	0.23
18.263	6.80E+07	0.89
16.071	1.51E+08	1.96
28.056	1.08E+07	0.14
14.5	1.83E+07	0.24
15.792	2.15E+08	2.80
22.378	2.46E+07	0.32
15.116	3.24E+08	4.22
21.979	9.99E+07	1.30
13.118	4.84E+07	0.63
15.012	2.86E+07	0.37
24.749	1.99E+07	0.26
21.553	4.32E+07	0.56
14.595	2.00E+08	2.61
14.905	5.78E+08	7.53
19.962	3.19E+07	0.42
20.603	3.04E+07	0.40
30.379	1.70E+07	0.22

16.163	3.74E+07	0.49
25.444	1.37E+07	0.18
30.185	3.69E+07	0.48
13.23	1.44E+07	0.19
19.747	3.75E+08	4.88
13.052	2.26E+07	0.29
13.619	1.17E+07	0.15
18.018	4.85E+07	0.63
24.555	6.16E+07	0.80
15.365	1.39E+08	1.82
31.044	1.08E+08	1.41
21.322	6.08E+07	0.79
25.193	3.90E+07	0.51
17.049	4.48E+07	0.58
10.777	1.88E+07	0.25
26.179	1.44E+08	1.88
24.008	1.31E+08	1.70
23.64	2.64E+07	0.34
26.632	8.53E+07	1.11
28.407	7.02E+07	0.91
29.213	1.25E+07	0.16
23.201	1.32E+08	1.71
25.331	1.60E+08	2.08
28.748	1.97E+07	0.26
22.618	1.11E+08	1.44
24.628	1.40E+08	1.82
17.956	1.97E+08	2.57
17.992	3.84E+07	0.50
18.063	1.01E+08	1.32
18.174	2.20E+08	2.87
20.141	1.62E+07	0.21
10.272	1.11E+07	0.14
15.261	1.60E+08	2.09
15.886	2.29E+08	2.98
22.49	1.59E+07	0.21
25.582	2.83E+07	0.37
21.707	1.03E+09	13.35
20.543	3.55E+07	0.46
13.334	1.18E+07	0.15
25.822	1.54E+07	0.20
29.463	1.17E+07	0.15
26.734	7.92E+07	1.03
21.451	1.74E+07	0.23
14.213	2.66E+07	0.35
18.338	3.28E+07	0.43
26.405	3.10E+07	0.40
27.431	1.19E+07	0.16
15.724	4.29E+07	0.56
32.206	1.12E+07	0.15
23.075	2.79E+07	0.36
27.024	6.10E+07	0.79
22.812	1.18E+08	1.53
24.86	1.29E+08	1.68
15.52	2.70E+08	3.51
15.589	3.85E+08	5.02

21.137	2.37E+07	0.31
25.934	5.59E+07	0.73
22.191	1.27E+08	1.65
27.521	7.04E+07	0.92
29.975	4.41E+07	0.57
24.359	1.58E+07	0.21
18.116	7.85E+07	1.02
14.686	2.70E+07	0.35
16.703	1.06E+08	1.38
16.812	5.32E+07	0.69

18.602	1.01E+07	0.14
25.58	2.11E+07	0.30
17.067	9.51E+07	1.36
17.104	3.76E+07	0.54
22.99	1.41E+07	0.20
16.712	5.34E+07	0.76
19.41	1.40E+07	0.20
22.729	1.19E+07	0.17
24.639	3.99E+08	5.70
26.742	1.88E+08	2.68
28.906	3.59E+07	0.51
32.209	1.79E+07	0.26
20.551	7.29E+07	1.04
20.856	1.35E+07	0.19
19.966	4.81E+07	0.69
18.511	1.05E+07	0.15

30.689	6.04E+07	0.86
21.556	7.22E+07	1.03
24.461	1.00E+07	0.14
25.049	1.06E+07	0.15
25.073	1.28E+07	0.18
25.616	2.34E+07	0.33
32.447	6.77E+07	0.97
17.249	2.99E+07	0.43
25.98	1.89E+07	0.27
30.187	5.16E+07	0.74
34.079	1.01E+07	0.14
24.355	3.00E+07	0.43
25.179	1.34E+08	1.91
30.39	2.72E+07	0.39
13.603	2.07E+07	0.30
32.074	1.49E+07	0.21
21.796	3.37E+09	48.15
19.765	6.49E+08	9.26
31.064	1.60E+08	2.29
21.121	2.65E+07	0.38
21.348	1.24E+07	0.18
20.15	3.67E+07	0.52
25.941	1.51E+07	0.22
27.701	1.23E+07	0.17
32.87	2.08E+07	0.30
16.867	2.14E+07	0.31

22.626	2.75E+08	3.93
26.182	3.42E+08	4.88
23.34	1.93E+07	0.28
24.145	2.64E+07	0.38
24.263	4.16E+07	0.59
25.48	2.16E+07	0.31
22.507	3.54E+07	0.51
24.753	2.24E+07	0.32
26.346	1.41E+07	0.20
24.01	3.20E+08	4.57
28.407	1.02E+08	1.45
28.746	3.44E+07	0.49
27.342	1.30E+07	0.18
23.212	3.27E+08	4.67
25.337	4.12E+08	5.88
26.637	1.99E+08	2.84
31.363	3.20E+07	0.46
31.743	6.03E+07	0.86
17.953	1.88E+08	2.69
20.623	4.14E+07	0.59
18.301	3.03E+07	0.43
19.017	1.50E+07	0.21
21.452	6.12E+07	0.87
21.249	2.38E+07	0.34
20.883	2.07E+07	0.30
25.721	5.17E+07	0.74
15.718	6.48E+07	0.93
16.29	1.45E+07	0.21
13.246	1.55E+07	0.22
23.448	1.74E+07	0.25
24.558	1.74E+08	2.48
18.698	2.03E+07	0.29
21.004	3.17E+07	0.45
26.407	5.99E+07	0.86
21.936	1.67E+07	0.24
22.381	6.07E+07	0.87
23.078	4.46E+07	0.64
23.478	2.76E+07	0.39
20.282	2.31E+07	0.33
22.817	2.82E+08	4.03
23.657	5.09E+07	0.73
24.867	3.38E+08	4.82
27.031	1.45E+08	2.07
29.217	2.27E+07	0.32
25.908	2.06E+07	0.29
27.522	1.65E+08	2.35
22.211	1.26E+08	1.80
28.061	1.35E+07	0.19
27.205	5.06E+07	0.72
29.998	2.55E+07	0.36
27.431	2.93E+07	0.42
29.739	1.36E+07	0.19
33.214	1.40E+07	0.20
22.002	9.88E+07	1.41
21.328	1.75E+07	0.25

10.277	2.87E+07	0.41
33.865	6.86E+07	0.98

16.283	2.78E+07	0.28
19.74	2.07E+08	2.08
16.75	1.85E+07	0.19
19.41	1.06E+07	0.11
24.156	2.41E+07	0.24
22.247	1.54E+07	0.15
22.623	3.38E+08	3.40
24.65	1.15E+09	11.58
25.887	2.22E+07	0.22
19.964	2.71E+07	0.27
19.24	1.29E+07	0.13
28.916	2.08E+08	2.09
21.855	1.86E+07	0.19
28.755	2.65E+08	2.67
25.352	1.62E+09	16.30
21.557	5.36E+07	0.54
24.333	2.84E+07	0.29
20.55	1.36E+07	0.14
21.638	9.26E+07	0.93
17.823	3.11E+07	0.31
17.837	1.24E+07	0.13
13.226	2.64E+07	0.27
23.753	3.53E+07	0.35
20.873	1.76E+07	0.18
20.159	1.22E+07	0.12
17.978	1.48E+08	1.49
18.027	1.17E+08	1.17
22.391	3.79E+07	0.38
31.053	7.71E+07	0.78
13.056	1.56E+07	0.16
27.041	7.90E+08	7.95
27.534	1.12E+09	11.23
25.172	8.78E+07	0.88
26.207	1.41E+09	14.17
24.757	5.13E+07	0.52
28.418	4.38E+08	4.41
30.621	1.42E+08	1.42
21.957	1.25E+07	0.13
24.258	5.44E+07	0.55
26.874	2.15E+07	0.22
22.506	2.23E+07	0.22
24.015	5.94E+08	5.98
27.359	6.15E+07	0.62
24.448	1.59E+07	0.16
23.617	2.37E+07	0.24
29.733	1.69E+08	1.70
28.414	4.22E+08	4.24
21.378	1.41E+07	0.14
30.376	1.05E+07	0.11
24.566	4.86E+08	4.88
25.471	1.19E+07	0.12

22.814	3.65E+08	3.67
24.881	1.11E+09	11.20
26.646	7.97E+08	8.02
21.257	2.69E+07	0.27
26.758	8.26E+08	8.30
20.447	5.48E+07	0.55
21.969	1.20E+07	0.12
23.079	4.59E+07	0.46
23.655	4.29E+07	0.43
29.207	1.57E+08	1.58
30.17	6.49E+07	0.65
23.206	5.56E+08	5.59
22.189	4.44E+07	0.45
29.976	1.83E+07	0.18
32.106	1.32E+07	0.13

24.26	4.80E+07	0.47
18.287	1.14E+07	0.11
19.739	2.28E+08	2.23
16.739	1.75E+07	0.17
26.813	1.52E+08	1.49
27.203	1.87E+08	1.82
19.403	1.90E+07	0.19
21.943	4.51E+07	0.44
22.509	2.40E+07	0.23
22.62	2.69E+08	2.62
22.724	2.05E+07	0.20
23.079	3.81E+07	0.37
25.854	1.43E+07	0.14
25.904	2.18E+07	0.21
28.909	5.07E+07	0.50
25.063	4.01E+07	0.39
32.201	1.27E+07	0.12
33.866	3.63E+07	0.35
30.681	4.91E+07	0.48
15.528	1.70E+07	0.17
21.555	4.76E+07	0.46
22.057	2.58E+07	0.25
22.392	3.74E+07	0.36
25.476	4.47E+07	0.44
30.386	2.03E+07	0.20
32.449	4.28E+07	0.42
24.466	2.27E+07	0.22
25.989	3.71E+07	0.36
15.732	1.46E+07	0.14
21.732	1.64E+09	15.98
17.887	7.79E+07	0.76
30.196	2.89E+07	0.28
31.363	2.08E+07	0.20
16.956	2.49E+07	0.24
31.522	2.25E+07	0.22
28.136	7.32E+07	0.71
26.324	2.32E+07	0.23
26.74	3.02E+08	2.95

25.19	1.11E+08	1.09
19.869	2.18E+07	0.21
28.057	2.55E+07	0.25
31.053	1.26E+08	1.23
23.858	2.09E+08	2.04
33.207	1.03E+07	0.10
32.868	1.14E+07	0.11
24.134	3.97E+07	0.39
24.346	2.29E+07	0.22
24.768	3.88E+07	0.38
24.01	3.82E+08	3.73
28.406	1.79E+08	1.75
24.555	2.17E+08	2.12
28.747	5.38E+07	0.53
26.642	3.09E+08	3.02
32.082	1.59E+07	0.15
26.188	5.16E+08	5.04
29.74	2.81E+07	0.27
24.639	5.25E+08	5.12
21.358	5.98E+07	0.58
27.255	1.03E+08	1.00
31.74	3.41E+07	0.33
27.027	3.37E+08	3.29
17.942	9.45E+07	0.92
23.128	1.61E+07	0.16
25.623	1.08E+08	1.05
21.843	9.37E+07	0.91
13.223	3.07E+07	0.30
20.868	2.14E+07	0.21
16.294	1.58E+07	0.15
23.361	1.18E+07	0.12
21.011	1.69E+07	0.17
21.12	1.72E+07	0.17
25.97	2.40E+07	0.23
23.205	3.66E+08	3.57
27.421	1.88E+08	1.83
22.811	2.85E+08	2.79
24.869	4.57E+08	4.46
29.214	3.50E+07	0.34
19.961	1.99E+08	1.94
25.334	5.72E+08	5.58
23.47	4.80E+07	0.47
23.661	5.35E+07	0.52
22.197	7.15E+07	0.70
27.59	2.03E+08	1.98
26.4	2.32E+08	2.27
26.561	1.87E+08	1.82
29.978	4.86E+07	0.47
27.522	2.25E+08	2.19
20.535	1.00E+08	0.98
21.249	1.37E+07	0.13

20.446	1.95E+07	0.34
19.738	8.31E+07	1.46

20.151	1.56E+07	0.27
29.985	5.84E+07	1.02
16.754	2.23E+07	0.39
19.401	1.21E+07	0.21
20.283	1.10E+07	0.19
24.635	1.92E+08	3.37
24.755	1.51E+07	0.26
25.171	2.84E+07	0.50
28.903	1.38E+07	0.24
28.915	2.30E+07	0.40
25.478	1.46E+07	0.26
15.534	1.06E+07	0.19
20.879	1.53E+07	0.27
23.204	1.34E+08	2.36
21.012	1.12E+07	0.20
27.526	1.11E+08	1.94
21.554	4.15E+07	0.73
23.654	2.32E+07	0.41
24.264	2.23E+07	0.39
25.648	1.15E+07	0.20
25.723	1.78E+07	0.31
25.585	1.63E+07	0.29
25.976	5.39E+07	0.95
17.868	7.89E+07	1.39
17.955	2.02E+07	0.35
30.384	1.24E+07	0.22
28.071	1.73E+07	0.30
24.352	1.13E+07	0.20
23.464	1.20E+07	0.21
31.053	8.54E+07	1.50
22.621	1.00E+08	1.76
30.636	2.25E+07	0.40
24.01	1.65E+08	2.89
28.41	1.07E+08	1.88
24.555	8.02E+07	1.41
29.218	2.15E+07	0.38
26.185	2.30E+08	4.03
25.335	2.13E+08	3.74
26.743	1.13E+08	1.99
21.267	6.36E+07	1.12
30.193	2.17E+07	0.38
21.645	2.03E+08	3.56
19.964	6.68E+07	1.17
22.043	1.73E+07	0.30
13.22	4.77E+07	0.84
27.208	2.31E+07	0.41
27.286	1.01E+07	0.18
19.872	1.35E+07	0.24
20.56	1.15E+07	0.20
21.843	5.29E+07	0.93
16.303	1.15E+07	0.20
29.347	1.07E+07	0.19
22.381	2.48E+07	0.44
23.861	6.32E+07	1.11
28.755	3.39E+07	0.59

22.81	1.10E+08	1.93
24.867	1.74E+08	3.06
27.027	9.56E+07	1.68
26.635	1.17E+08	2.05
22.167	1.12E+08	1.97
26.412	3.99E+07	0.70
27.433	1.74E+07	0.31
29.742	1.97E+07	0.35
32.089	1.19E+07	0.21
23.083	1.60E+07	0.28
25.053	1.49E+07	0.26

19.871	2.16E+07	0.25
19.742	1.70E+08	1.97
25.588	1.56E+07	0.18
21.269	4.59E+07	0.53
16.298	1.74E+07	0.20
16.74	3.02E+07	0.35
19.412	1.37E+07	0.16
22.047	1.60E+07	0.19
23.082	2.11E+07	0.24
24.75	1.81E+07	0.21
25.177	3.40E+07	0.39
25.482	1.99E+07	0.23
19.966	9.67E+07	1.12
20.865	1.64E+07	0.19
31.751	1.20E+07	0.14
22.911	2.59E+07	0.30
28.413	1.43E+08	1.66
26.748	1.46E+08	1.69
21.558	4.51E+07	0.52
20.622	1.24E+07	0.14
22.51	2.12E+07	0.25
23.442	1.09E+07	0.13
23.632	1.48E+07	0.17
24.258	2.32E+07	0.27
25.631	1.79E+07	0.21
25.726	2.42E+07	0.28
20.294	1.32E+07	0.15
17.82	4.27E+07	0.49
22.014	1.89E+07	0.22
30.192	2.43E+07	0.28
24.357	1.39E+07	0.16
25.069	1.59E+07	0.18
13.609	1.33E+07	0.15
31.055	8.59E+07	1.00
21.014	1.63E+07	0.19
21.127	1.36E+07	0.16
21.456	1.22E+07	0.14
22.38	1.40E+07	0.16
20.162	1.33E+07	0.15
20.556	1.61E+07	0.19
27.355	1.16E+07	0.13
13.058	3.93E+07	0.46

26.186	2.48E+08	2.88
24.637	2.23E+08	2.58
28.917	5.10E+07	0.59
28.757	4.48E+07	0.52
24.141	1.20E+07	0.14
30.637	3.74E+07	0.43
24.561	9.10E+07	1.06
23.209	1.53E+08	1.77
24.014	1.71E+08	1.98
29.746	3.28E+07	0.38
22.623	1.10E+08	1.28
27.532	1.50E+08	1.74
23.659	1.23E+07	0.14
20.444	3.73E+07	0.43
21.644	1.87E+08	2.17
17.958	2.37E+07	0.27
21.845	7.72E+07	0.90
23.863	1.52E+08	1.77
13.235	3.34E+07	0.39
25.979	7.73E+07	0.90
32.092	1.85E+07	0.21
30.268	1.23E+07	0.14
27.731	1.19E+07	0.14
15.539	1.39E+07	0.16
25.34	2.46E+08	2.85
22.812	1.10E+08	1.27
24.872	2.05E+08	2.38
27.033	1.21E+08	1.40
29.216	3.44E+07	0.40
15.739	1.66E+07	0.19
26.636	1.47E+08	1.70
22.185	1.68E+08	1.95
28.064	1.39E+07	0.16
27.208	2.63E+07	0.30
26.414	3.33E+07	0.39
27.432	1.50E+07	0.17
29.988	6.20E+07	0.72
21.367	1.05E+07	0.12
30.388	1.49E+07	0.17

33.46	1.12E+07	0.24
13.138	3.00E+07	0.64
31.129	5.72E+07	1.22
29.345	2.47E+07	0.53
28.82	1.32E+07	0.28
28.939	2.97E+07	0.63
25.648	1.10E+07	0.23
36.131	1.56E+07	0.33
30.61	6.57E+07	1.40
30.087	1.04E+07	0.22
9.676	1.23E+07	0.26

31.106	5.06E+07	1.07
29.346	1.26E+07	0.27
28.799	1.19E+07	0.25
25.631	2.20E+07	0.47
28.924	2.76E+07	0.58
21.296	2.76E+07	0.58
13.309	1.59E+07	0.34
25.784	2.54E+07	0.54
30.59	5.91E+07	1.25
24.319	1.82E+07	0.38
30.062	1.35E+07	0.28

30.437	1.27E+07	0.27
13.104	3.15E+07	0.67
31.098	1.12E+08	2.37
30.578	1.03E+07	0.22

28.903	1.29E+07	0.27
31.085	8.27E+07	1.72
13.089	3.64E+07	0.75
21.274	1.29E+07	0.27
30.429	1.34E+07	0.28
30.566	2.56E+07	0.53

25.746	2.26E+07	0.46
21.27	6.21E+07	1.28
31.074	4.86E+07	1.00
25.603	1.74E+07	0.36
13.275	1.08E+07	0.22
24.288	1.27E+07	0.26
30.553	2.26E+07	0.46
9.598	1.79E+07	0.37
25.759	2.70E+07	0.56

13.274	1.04E+07	0.21
33.87	2.09E+07	0.42
21.554	1.49E+07	0.30

29.12	1.85E+07	0.37
28.886	3.44E+07	0.69
33.198	1.92E+07	0.38
21.079	1.47E+07	0.29
30.206	2.62E+07	0.52
34.988	1.50E+07	0.30
31.052	1.39E+08	2.77
21.245	4.17E+07	0.83
24.088	1.41E+07	0.28
29.378	1.13E+07	0.22
25.564	1.99E+07	0.40

25.727	3.85E+07	0.77
30.38	2.59E+07	0.52
30.886	2.40E+07	0.48
30.534	2.99E+07	0.60
28.179	4.37E+07	0.87
24.264	1.59E+07	0.32
30.7	2.15E+07	0.43
9.589	1.39E+07	0.28
27.889	2.02E+07	0.40



35.014	1.41E+07	0.26
28.886	4.06E+07	0.76
29.298	2.99E+07	0.56
30.637	1.00E+07	0.19
31.065	9.92E+07	1.85
21.258	1.00E+07	0.19
30.205	1.23E+07	0.23
25.591	1.13E+07	0.21
25.74	2.81E+07	0.53
30.542	4.55E+07	0.85
30.393	2.24E+07	0.42



SALIVA / GASTRIC / INTESTINAL

COMPOUND NAME

UNUSED INFILL

Sample A

(2-Aziridinylethyl)amine
Furan, tetrahydro-2,5-dipropyl-
2,4-Dimethyl-1-heptene
Decane, 2,5,6-trimethyl-
8-Hydroxy-2-octanone
5,9-Dodecadien-2-one, 6,10-dimethyl-, (E,E)-
3-Heptanone, 5-methyl-
5H-Dibenzo[c,g]carbazole, 6,7-dihydro-
7-Methoxy-2,2,4,8-tetramethyltricyclo[5.3.1.0(4,11)]undecane
Quinoline, 1,2-dihydro-2,2,4-trimethyl-
Phenol, 2,5-bis(1,1-dimethylethyl)-

Sample E

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
2,4-Dimethyl-1-heptene
Hexane, 2,4-dimethyl-
8-Hydroxy-2-octanone
2-Hexanone, 3,4-dimethyl-
Decane, 2,6,8-trimethyl-
3-Hydroxy picolinic TMS 2
9-Octadecenoic acid, 2-phenyl-1,3-dioxan-5-yl ester
Phenol, 2,4-bis(1,1-dimethylethyl)-

Sample G

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
2-Hexanone, 3,4-dimethyl-
Decane, 2,6,6-trimethyl-
2,2'-Bibenzothiazole
Cyclopentanone, 2-acetyl-3,3-dimethyl-2-
Phenol, 2,5-bis(1,1-dimethylethyl)-
2-Nonadecanone

Sample I

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
2,4-Dimethyl-1-heptene
Decane, 2,5,6-trimethyl-
Decane, 2,6,6-trimethyl-
Hexadecanal, 2-methyl-
Phenol, 2,5-bis(1,1-dimethylethyl)-
Ethanol, 2-(9-octadecenyloxy)-, (Z)-
13-Heptadecyn-1-ol
2-Pentadecanone

UNUSED FIBER

Sample 2

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
Decane, 2,5,6-trimethyl-
8-Hydroxy-2-octanone

2-Hexanone, 3,4-dimethyl-
3-Heptanone, 5-methyl-
1-Hexene, 3,5-dimethyl-
2,2'-Bibenzothiazole
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
Phenol, 2,4-bis(1,1-dimethylethyl)-

Sample 3

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
Oxalic acid, heptyl isohexyl ester
3-Heptanone, 5-methyl-
3,4-Dihydroisoquinolin-7-ol, 1-[4-hydroxybenzyl]-6-methoxy-
1-Hexene, 3,5-dimethyl-
3-Hydroxy picolinic TMS 2
3-Methylcyclopentadecylcarbamic acid, t-butyl ester
7-Methoxy-2,2,4,8-tetramethyltricyclo[5.3.1.0(4,11)]undecane
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
Phenol, 2,4-bis(1,1-dimethylethyl)-

Sample 4

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
Decane, 2,5,6-trimethyl-
8-Hydroxy-2-octanone
2-Hexanone, 3,4-dimethyl-
3-Octanone
3,4-Dihydroisoquinolin-7-ol, 1-[4-hydroxybenzyl]-6-methoxy-
3-Hydroxy picolinic TMS 2
Isoquinolin-6,7-diol-, 3,4-dihydro-1-[[4-hydroxyphenyl]methyl]-
Ethanol, 2-(2-butoxyethoxy)-, acetate
Phenol, 2,5-bis(1,1-dimethylethyl)-

Sample 5

(2-Aziridinylethyl)amine
8-Hydroxy-2-octanone
2-Hexanone, 3,4-dimethyl-
Decane, 2,6,6-trimethyl-
3,4-Dihydroisoquinolin-7-ol, 1-[4-hydroxybenzyl]-6-methoxy-
Cyclopropane, pentyl-
3-Hydroxy picolinic TMS 2
2-Oxepanone, 7-butyl-
(Z)6,(Z)9-Pentadecadien-1-ol
Phenol, 2,5-bis(1,1-dimethylethyl)-
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
4-(4-Ethoxycarbonylbuta-1,3-dienyl)-1-methyl-2,5-diphenyl-1H-pyrrole-3-carboxylic acid, ethyl ester

Sample 6

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
8-Hydroxy-2-octanone
3,5-Dimethyl-2-octanone
3-Heptanone, 5-methyl-
3,4-Dihydroisoquinolin-7-ol, 1-[4-hydroxybenzyl]-6-methoxy-
3-Undecene, 9-methyl-, (Z)-
3-Hydroxy picolinic TMS 2

(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol
No Match
Phenol, 2,4-bis(1,1-dimethylethyl)-
Benzene, (1-ethylnonyl)-
Hexadecanal, 2-methyl-
Hexestrol
1,3-Cyclopentadiene, 2,3,4,5-tetramethyl
2,4,6-Trimethylmandelic acid

Sample 7

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
Decane, 2,6,6-trimethyl-
3,4-Dihydroisoquinolin-7-ol, 1-[4-hydroxybenzyl]-6-methoxy-
3-Hydroxy picolinic TMS 2
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Phenol, 2,5-bis(1,1-dimethylethyl)-
9-Hexadecenoic acid, 9-hexadecenyl ester
Benzophenone, 4,4'-bis[(trimethylsilyl)amino]-
Estra-1,3,5(10)-trien-17-one, 3,4-bis[(trimethylsilyl)oxy]-

Sample 8

2,5-Dimethylhexane-2,5-dihydroperoxide
Decane, 2,6,6-trimethyl-
3,4-Dihydroisoquinolin-7-ol, 1-[4-hydroxybenzyl]-6-methoxy-
2,2'-Bibenzothiazole
Phenol, 2,5-bis(1,1-dimethylethyl)-

FIELD INFILL

Sample AA

Benzeneethanamine, 2,5-dimethoxy- π 4-dimethyl-
cis-4-Hydroxy-3-methyldecanoic acid lactone
2,2'-Bibenzothiazole
3-Methylcyclopentadecylcarbamic acid, t-butyl ester
Phenol, 3,5-bis(1,1-dimethylethyl)-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione

2,4-Imidazolidinedione, 5-[3,4-bis[(trimethylsilyl)oxy]phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-

2,4-Imidazolidinedione, 5-[3,4-bis[(trimethylsilyl)oxy]phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-

2,4-Imidazolidinedione, 5-[3,4-bis[(trimethylsilyl)oxy]phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-
10-(Methoxycarbonyl)-N-acetylcolchicinol
Dihydromorphine, di(trimethylsilyl) ether

2,4-Imidazolidinedione, 5-[3,4-bis[(trimethylsilyl)oxy]phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-

2,4-Imidazolidinedione, 5-[3,4-bis[(trimethylsilyl)oxy]phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-

Pregnane-3,11,12,14,20-pentol, 3,12,20-triacetate 11-benzoate, (3 π 11 π 12 π 14 π -

2,4-Imidazolidinedione, 5-[3,4-bis[(trimethylsilyl)oxy]phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-

Sample BB

Cholest-5-ene, 3-(hexadecyloxy)-, (3 π -
Cyclopentadecanone, 2-methyl-
Allyl 2-ethyl butyrate
2,4,4-Trimethyl-3-(3-methylbuta-1,3-dienyl)cyclohexanone

Benzenethiol, 4-(1,1-dimethylethyl)-2-methyl-
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
Phenol, 3,5-bis(1,1-dimethylethyl)-

Sample CC

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
Furan, tetrahydro-2,2,4,4-tetramethyl-
Decane, 2,6,8-trimethyl-
[1,1'-Bicyclopropyl]-2-octanoic acid, 2'-hexyl-, methyl ester
Quinoline, 7-methyl-
4-Tripropylsilyloxy-pentadecane
2H-1,4-Benzodiazepin-2-one, 7-chloro-1,3-dihydro-5-phenyl-
2H-1,4-Benzodiazepin-2-one, 7-chloro-1,3-dihydro-5-phenyl-
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
Phenol, 2,4-bis(1,1-dimethylethyl)-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione

Sample DD

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
Decane, 2,5,6-trimethyl-
3-Octanone
3-Hydroxy picolinic TMS 2
3-Methylcyclopentadecylcarbamic acid, t-butyl ester
Phenol, 2,5-bis(1,1-dimethylethyl)-

Sample EE

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine
Decane, 2,5,6-trimethyl-
2-Hexanone, 3,4-dimethyl-
Decane, 2,6,6-trimethyl-
2,2'-Bibenzothiazole
3-Methylcyclopentadecylcarbamic acid, t-butyl ester
Phenol, 2,4-bis(1,1-dimethylethyl)-

Sample FF

2,4-Dimethyl-1-heptene
1-Octanol, 2-butyl-
8-Hydroxy-2-octanone
Decane, 2,6,8-trimethyl-
3-Hydroxy picolinic TMS 2
3-Methylcyclopentadecylcarbamic acid, t-butyl ester
2H-1,4-Benzodiazepin-2-one, 7-chloro-1,3-dihydro-5-phenyl-
7-Methoxy-2,2,4,8-tetramethyltricyclo[5.3.1.0(4,11)]undecane
2,5-Cyclohexadiene-1,4-dione, 2,6-bis(1,1-dimethylethyl)-
Phenol, 2,5-bis(1,1-dimethylethyl)-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
Estra-1,3,5(10)-trien-17-one, 3,4-bis[(trimethylsilyl)oxy]-

Sample GG

Decane, 2,5,6-trimethyl-
3,5-Dimethyl-2-octanone
Decane, 2,6,8-trimethyl-
2,2'-Bibenzothiazole
8,11,14-Eicosatrienoic acid, methyl ester

Demeton-O


2H-1,4-Benzodiazepin-2-one, 7-chloro-1,3-dihydro-5-phenyl-

1H-Indole, 1,3-dimethyl-5,6-dimethoxy-2-

Benzo[a]pentacene

Phenol, 2,4-bis(1,1-dimethylethyl)-

[3-Methyl-2-(4-nitro-phenyl)-4-oxo-1,2,3,4-tetrahydro-phthalazin-1-yl]-acetic acid, methyl ester



RETENTION TIME (min)	PEAK AREA	CALCULATED CONCENTRATION PPM (mg/kg)
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0.86	1.31E+06	0.02
2.391	1.08E+06	0.02
3.869	1.60E+06	0.02
5.648	7.91E+07	1.42
7.214	1.46E+06	0.02
7.344	1.45E+06	0.02
7.944	3.22E+07	0.57
13.91	1.05E+06	0.01
22.655	1.82E+06	0.03
22.75	3.19E+06	0.05
23.685	2.93E+07	0.51

0.862	1.61E+06	0.03
3.868	1.57E+06	0.02
5.645	4.71E+07	0.86
7.213	1.28E+06	0.02
7.349	1.40E+06	0.02
7.943	2.92E+07	0.53
14.517	1.33E+07	0.24
14.808	1.21E+06	0.02
23.682	2.60E+07	0.46

0.859	1.65E+06	0.03
7.357	1.00E+06	0.02
7.948	2.84E+07	0.61
14.517	1.31E+07	0.28
22.655	1.07E+06	0.02
23.682	3.48E+07	0.75
28.144	1.17E+06	0.02

0.861	1.33E+06	0.03
3.868	1.41E+06	0.03
5.643	2.95E+07	0.71
7.942	2.88E+07	0.69
23.606	2.01E+06	0.04
23.679	3.55E+07	0.82
27.518	1.19E+06	0.02
27.662	1.04E+06	0.02
28.134	1.53E+06	0.03

0.86	1.55E+06	0.00
5.633	1.87E+07	0.02
7.204	1.29E+06	0.00

7.339	1.62E+06	0.00
7.939	3.58E+07	0.04
11.587	6.90E+06	0.01
14.509	1.19E+07	0.01
23.01	1.22E+06	0.00
23.675	2.07E+07	0.02

0.863	1.17E+06	0.00
5.63	1.66E+07	0.02
7.936	3.24E+07	0.03
8.603	1.25E+07	0.01
11.595	2.44E+06	0.00
14.511	1.19E+07	0.01
14.772	2.83E+06	0.00
22.653	1.02E+06	0.00
23.01	1.60E+06	0.00
23.679	1.73E+07	0.02

0.869	1.01E+06	0.00
5.629	1.48E+07	0.01
7.204	1.11E+06	0.00
7.345	1.15E+06	0.00
7.935	2.56E+07	0.02
8.601	8.97E+06	0.01
14.516	8.70E+06	0.01
14.732	1.01E+06	0.00
20.949	2.19E+06	0.00
23.681	1.92E+07	0.01

0.865	2.39E+06	0.00
7.208	1.03E+06	0.00
7.343	1.09E+06	0.00
7.94	2.39E+07	0.01
8.607	1.40E+07	0.01
13.393	2.79E+06	0.00
14.519	9.81E+06	0.00
19.08	1.88E+06	0.00
23.077	1.19E+06	0.00
23.682	2.36E+07	0.01
27.665	1.36E+06	0.00
59.318	1.05E+06	0.00

0.87	4.57E+06	0.00
7.215	1.06E+06	0.00
7.354	1.11E+06	0.00
7.946	2.42E+07	0.03
8.613	1.37E+07	0.01
11.612	1.48E+06	0.00
14.52	9.70E+06	0.01

23.057	1.24E+07	0.01
23.329	1.57E+06	0.00
23.683	2.38E+07	0.02
27.087	1.24E+06	0.00
28.14	1.23E+06	0.00
28.252	1.16E+06	0.00
28.428	1.67E+06	0.00
28.555	1.24E+06	0.00

0.864	1.45E+06	0.00
7.945	2.02E+07	0.03
8.615	3.50E+06	0.00
14.521	6.63E+06	0.01
23.073	1.31E+06	0.00
23.684	2.95E+07	0.04
27.727	1.10E+06	0.00
34.657	1.79E+06	0.00
37.295	1.82E+06	0.00

7.215	1.11E+06	0.00
7.947	2.13E+07	0.04
8.612	7.41E+06	0.01
14.525	9.29E+06	0.02
23.689	1.95E+07	0.04

0.867	4.72E+06	0.09
7.956	2.97E+07	0.59
14.524	1.53E+07	0.30
14.781	2.41E+06	0.04
23.696	2.84E+07	0.55
33.056	1.17E+06	0.02
55.202	1.35E+06	0.02
56.292	1.43E+06	0.02
57.218	1.01E+07	0.19
58.084	9.83E+06	0.19
58.352	8.83E+06	0.17
58.441	7.29E+06	0.14
59.095	8.50E+06	0.16
60.842	2.03E+06	0.03
61.547	5.79E+06	0.11

7.217	1.61E+06	0.03
7.347	1.62E+06	0.03
7.951	3.80E+07	0.82
20.666	1.34E+06	0.02

22.666	1.07E+06	0.02
23.019	1.42E+06	0.03
23.693	2.75E+07	0.57

0.868	3.82E+06	0.06
2.392	1.03E+06	0.01
7.943	3.48E+07	0.61
14.783	3.85E+06	0.06
17.404	4.20E+06	0.07
17.471	1.54E+06	0.02
17.497	1.62E+06	0.02
17.631	1.08E+06	0.02
23.017	1.03E+06	0.01
23.685	2.88E+07	0.50
33.052	1.15E+06	0.01

0.865	3.61E+06	0.07
5.662	1.34E+08	2.81
7.954	3.32E+07	0.69
14.52	1.46E+07	0.30
14.791	2.13E+06	0.04
23.688	2.82E+07	0.59

0.862	1.61E+06	0.03
5.659	1.06E+08	2.12
7.356	1.05E+06	0.02
7.952	3.81E+07	0.76
14.521	1.63E+07	0.32
14.783	3.95E+06	0.07
23.686	2.82E+07	0.56

3.862	1.13E+06	0.02
5.649	8.69E+07	1.60
7.214	1.19E+06	0.02
7.947	3.20E+07	0.59
14.519	9.81E+06	0.18
14.782	2.11E+06	0.03
17.483	1.23E+06	0.02
22.66	1.39E+06	0.02
23.019	1.17E+06	0.02
23.686	3.14E+07	0.56
33.055	1.07E+06	0.01
37.3	2.91E+06	0.05

5.64	7.00E+07	1.34
7.344	1.11E+06	0.02
7.939	3.96E+07	0.75
14.514	1.38E+07	0.26
14.782	3.04E+06	0.05

17.403	1.28E+06	0.02
17.471	1.84E+06	0.03
17.545	1.82E+06	0.03
20.541	1.24E+06	0.02
23.679	2.82E+07	0.52
58.506	2.05E+06	0.03



Trilinolein
Trilinolein
Trilinolein
Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl)-
Rhodopin
Trilinolein
Trilinolein
Acetic acid, 17-acetoxy-3-hydroxyimino-4,4,13-trimethyl-hexadecahydrocyclopenta[a]phenanthren-10-ylmethyl ester

Sample H

Rhodopin
Rhodopin
Acetic acid, 17-acetoxy-3-hydroxyimino-4,4,13-trimethyl-hexadecahydrocyclopenta[a]phenanthren-10-ylmethyl ester
1,3-Dichloro-1,3-bis(norbornadien-2-yl)-1,3-bis(3-trimethylsilylpropyl)disiloxane
Alclometasone Dipropionate
Rhodopin
9,19-Cyclocholestan-3-ol-7-one, 4 π 14 π dimethyl- (20R)
Rhodopin
Trilinolein
Rhodopin
Rhodopin
Trilinolein
Acetic acid, 17-acetoxy-3-hydroxyimino-4,4,13-trimethyl-hexadecahydrocyclopenta[a]phenanthren-10-ylmethyl ester
Trilinolein
Rhodopin
Rhodopin
Rhodopin
Trilinolein
ester
ester
2,4,7,10,11-pentaacetate
(22R)-6 π 11 π 21-Trihydroxy-16 π 17 π propylmethylenedioxyregna-1,4-diene-3,20-dione
Rhodopin
Lycopene
Rhodopin
Hexa-t-butylselenatrisiletane
Rhodopin
2,4,7,10,11-pentaacetate
Rhodopin
ester
cyclopent(a)phenanthren-3-ol
Lycopene
2-Butenoic acid, 2-methoxy-3-methyl-, methyl ester
No Match
1H-cyclopropa[3,4]benz[1,2-e]azulen-9-yl ester, [1aR-(1a π 1b π 4a π 7a π 7b π 8 π 9 π 9a π)-

No Match
No Match
No Match
No Match

UNUSED FIBER

Sample 1

o-Toluic acid, 2-chlorophenyl ester
Trilinolein

Sample 3

No Match

17.beta Acetoxy-1',1'-dicarboethoxy-1π2πdihydro-17πmethyl-3'H-cycloprop[1,2]-5πandrost-1-en-3-one

Sample 5

Oxirane, tetramethyl-
Spiro-1-(cyclohex-2-ene)-2'-(5'-oxabicyclo[2.1.0]pentane), 1',4',2,6,6-pentamethyl-

Sample 8

9-Desoxo-9-x-acetoxy-3,8,12-tri-O-acetylingol

Trilinolein
Trilinolein
Trilinolein

Trilinolein

FIELD INFILL

Sample AA

No Match

2-[(1-Hexadecylpyrrolidin-2-ylidenamino)-(4-methoxyphenyl)-methylene]malononitrile
Thieno[2,3-d]pyrimidin-4(3H)-one, 2-amino-6-ethyl-3-methyl-
Rhodoviolascin
Molybdenum, di-æ-chlorobis[(1,2,3,4,5,6-ü)-methylbenzene]bis(ü3-2-propenyl)di-
á-N-Acetylneuraminic acid, methyl ester-2-methyl-7,9-methyl-boronate-3,8-di(trimethylsilyl)-
Glucobrassicin
Crinan-6,11-diol, 1,2-didehydro-3-methoxy-, (3á,5á,6á,11R,13á,19á)-
N,N'-o-Phenylenebis(5,5,5-trifluoro-4-oxopentan-2-iminato)copper(ii)
N,N'-o-Phenylenebis(5,5,5-trifluoro-4-oxopentan-2-iminato)copper(ii)
N-Formyl-d-threo-O-methylthreonine
2-Hexene, 3,5-dimethyl-
3-Hydroxybutanamide, N-phenylmethoxy-
Benzyloxymethylimine
1-Methyl-2-phenylbenzimidazole
1,4-Benzenediol, 2,6-bis(1,1-dimethylethyl)-
Cyclopentanol, 3-methyl-
1-tert-Butoxy-2-methoxyethane
2,5-Dimethylhexane-2,5-dihydroperoxide
N-2,4-Dnp-L-arginine
Pyrrolidine, 1-(1-oxo-2,5-octadecadienyl)-
Didemnin B
4-Keto-3,3-dimethylhexanoic acid, ethyl
Acethydrazide, N2-(1,2-dimethylpropylideno)-

4-Acetyloxyimino-6,6-dimethyl-3-methylsulfanyl-4,5,6,7-tetrahydro-benzo[c]thiophene-1-carboxylic acid methyl ester
Cyclopropanepentanoic acid, 2-undecyl-, methyl ester
Ethanol, 2-(9,12-octadecadienyloxy)-, (Z,Z)-
Hexadecane, 1,1-bis(dodecyloxy)-
1,3-Pentanediol, 2,2,4-trimethyl-
Cyclopropanedodecanoic acid, 2-octyl-, methyl ester
2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl
Cyclopentadecanone, 4-methyl-
Z-8-Methyl-9-tetradecenoic acid
2-Hexadecanol
Pentadec-7-ene, 7-bromomethyl-
2-Furancarboxylic acid, heptadecyl ester
Cyclohexanebutanoic acid, 2-methyl-3-oxo-, methyl ester
1H-Trindene, 2,3,4,5,6,7,8,9-octahydro-1,1,4,4,7,7-hexamethyl-
No Match
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide
Benzoyl chloride, 3-methyl-
Benzoyl chloride, 3-methyl-
4-Oxo-4-(para-tolyl)-butyric acid
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide
No Match
No Match
No Match
5-Octyn-1-ol tetrahydropyranol ether
No Match
No Match
Hexadecane, 1,1-bis(dodecyloxy)-

No Match
Z-(13,14-Epoxy)tetradec-11-en-1-ol acetate
Cyclopentadecanone, 4-methyl-
No Match
Methyl 15-methoxyhexadecanoate
Methyl 16-methoxyheptadecanoate
Borinic acid, diethyl-, 2-acetylphenyl ester
No Match
Thiophene, 2,5-diethyl-
No Match
N-Benzyl-2-[1-(4-methoxy-phenyl)-1H-tetrazol-5-ylsulfanyl]-acetamide
N-Benzyl-2-[1-(4-methoxy-phenyl)-1H-tetrazol-5-ylsulfanyl]-acetamide
N-Benzyl-2-[1-(4-methoxy-phenyl)-1H-tetrazol-5-ylsulfanyl]-acetamide
N-Benzyl-2-[1-(4-methoxy-phenyl)-1H-tetrazol-5-ylsulfanyl]-acetamide
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
No Match
Hexestrol
Hexestrol
2-(Trifluoromethyl)benzoic acid. 4-hexadecyl ester
Rhodopin
Myristic acid, 2-(trimethylsiloxy)-1-[(trimethylsiloxy)methyl]ethyl ester
No Match
No Match
No Match
No Match

No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
Pentasiloxane, 1,1,3,3,5,5,7,7,9,9-decamethyl-
No Match

Sample BB

No Match
Rhodoviolascin
2,7-Diphenyl-1,6-dioxopyridazino[4,5:2',3']pyrrolo[4',5'-d]pyridazine
N,N'-Bis(Carbobenzyloxy)-lysine methyl(ester)
2H-Benzo[f]oxireno[2,3-E]benzofuran-8(9H)-one, 9-[[[(1,3-benzodioxol-5-ylmethyl)amino]methyl]octahydro-2,5a-dimethyl
Rhodoviolascin
2-Furancarboxylic acid, 3-pentadecyl ester
Cyclopentane, (2-methylpropyl)-
13-Docosenoic acid, methyl ester
Oxirane, 2,3-diethyl-
Carbamic acid, (cyanomethyl)-, 1,1-dimethylethyl ester
Hexadecane, 1,1-bis(dodecyloxy)-
Oxirane, 2-methyl-2-(2-methylpropyl)-
2-Nonyl methylphosphonofluoridate
Cholestan-3-one, 4,4-dimethyl-, cyclic 1,2-ethanediyl acetal, (5 π -
5-(p-Aminophenyl)-4-phenyl-2-thiazolamine
Octadecanal, 2-bromo-
Octadecanal, 2-bromo-
2-Cyclohexyl-3-isopropyl-pent-4-en-2-ol
2-Hexadecanol
2-Hexadecanol
1-(Cyclopropyl-nitro-methyl)-cyclopentanol
No Match
No Match
9,10-Anthracenedione, 1-(methylamino)-4-[(4-methylphenyl)amino]-
9,10-Anthracenedione, 1-(methylamino)-4-[(4-methylphenyl)amino]-
2H-1,4-Benzodiazepin-2-one, 7-chloro-1,3-dihydro-1-methyl-5-[4-[(trimethylsilyloxy]phenyl]-
No Match
2H-1,4-Benzodiazepin-2-one, 7-chloro-1,3-dihydro-1-methyl-5-[4-[(trimethylsilyloxy]phenyl]-
8,8,9-Trimethyl-deca-3,5-diene-2,7-dione
Propylphosphonic acid di(1-methylpentyl) ester

Propane, 2,2'-[methylenebis(oxy)]bis[2-methyl-
8-Hydroxy-2-octanone
Tetradecane, 2,6,10-trimethyl-
5-(4,5-Dihydro-3H-pyrrol-2-ylmethylene)-4,4-dimethylpyrrolidin-2-one
5-(4,5-Dihydro-3H-pyrrol-2-ylmethylene)-4,4-dimethylpyrrolidin-2-one
5-(4,5-Dihydro-3H-pyrrol-2-ylmethylene)-4,4-dimethylpyrrolidin-2-one
6,7-Epoxyepregn-4-ene-9,11,18-triol-3,20-dione, 11,18-diacetate
Dithiocarbonic acid, S-(2,3-diphenyl-1-p-tolyl-cycloprop-2-enyl)ester-O-ethyl ester
4-Keto-3,3-dimethylhexanoic acid, ethyl ester
Butanoic acid, 3-oxo-, 1,1-dimethylethyl ester
Oxirane, 2-methyl-2-(2-methylpropyl)-
Cholestan-3-one, 4,4-dimethyl-, cyclic 1,2-ethanediyl acetal, (5 π -
No Match
Cyclopropanedodecanoic acid, 2-octyl-, methyl ester
Megestrol Acetate
10-Undecenoic acid, octyl ester
2-Hexadecanol
Tertbutyloxyformamide, N-methyl-N-[4-(1-pyrrolidinyl)-2-butynyl]-
Pentadec-7-ene, 7-bromomethyl-
No Match
No Match
Benzoyl chloride, 2-methyl-
Benzoyl chloride, 2-methyl-
3-Methylcyclopentadecylcarbamic acid, t-butyl ester
Pseudosolasodine diacetate
Acetic acid, 6-morpholin-4-yl-9-oxobicyclo[3.3.1]non-3-yl ester
Pseudosolasodine diacetate
2,6-Dimethyl-8-(tetrahydropyran-2-yloxy)-octa-2,6-dien-1-ol
No Match
Cyclopropanedodecanoic acid, 2-octyl-, methyl ester
1,2-15,16-Diepoxyhexadecane
3-Tetradecanol
Methyl 15-methoxyhexadecanoate
No Match
No Match
No Match
No Match
No Match
No Match
No Match
Thiophene, 2,5-diethyl-
Baccharane
1,3-Dioxane, 5-(hexadecyloxy)-2-pentadecyl-, cis-
No Match
No Match
No Match
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
N-Benzyl-2-[1-(4-methoxy-phenyl)-1H-tetrazol-5-ylsulfanyl]-acetamide
2-Benzoxazolamine, N-methyl-
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
2-Benzoxazolamine, N-methyl-
Bis(pentamethylcyclotrisiloxyl)tetramethyldisiloxane
Decanoic acid, octadecyl ester

No Match
Acetamide, 2-(4-morpholyl)-N-(4,5,6,7-tetrahydro-2-cyano-benzothien-3-yl)-
3,12-Oleandione
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
No Match
Didodecyl phthalate
No Match
3-Dimethyl(trimethylsilylmethyl)silyloxypentadecane
No Match
No Match
No Match
No Match
No Match

Sample DD

Propanamide, N-methyl-2-amino-
Rhodoviolascin
Butyl aldoxime, 3-methyl-, syn-
2-Methyl-2,3-pentanediol
2-Furancarboxylic acid, tetradecyl ester
1-Propyl-3,6-diazahomoadamantan-9-ol
Papaveroline
Carbamic acid, (cyanomethyl)-, 1,1-dimethylethyl ester
Acetic acid, 2-[2-methyl-4-(1-piperidylmethyl)-1,3-dioxolan-2-yl]-, ethyl ester
Octadecane, 1-isocyanato-
Cholestan-3-one, 4,4-dimethyl-, cyclic 1,2-ethanediyl acetal, (5 π -
Tetracyclo[11.4.0.0(1,10).0(5,9)]heptadec-12-ene-2 π 6-diol-15-one, 5-methyl ethylene diacetal
.beta.-Hydroxyquebrachamine
Dithiocarbonic acid, S-(2,3-diphenyl-1-p-tolyl-cycloprop-2-enyl)ester-O-ethyl ester
Neo-Inositol
Hexadecane, 1,1-bis(dodecyloxy)-
1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecen-11-one, 5,6-bis(acetyloxy)-4-[(acetyloxy)methyl]-1a,2,5,5a,6
(1-Ethyl-3,7-dimethylocta-2,6-dienylthio)benzene
No Match
Cyclohexane, 1,1'-dodecylidenebis[4-methyl-
Cyclohexane, 1,1'-dodecylidenebis[4-methyl-
No Match
No Match
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide
No Match
o-Toluic acid, 3,5-difluorophenyl ester
l-Serine, N,o-bis(m-toluoyl)-, methyl ester
Benzamide, 2-methyl-N-benzyl-N-isopropyl
4-Oxo-4-(para-tolyl)-butyric acid
2-Allylamino-4-oxo-4-p-tolyl-butyrac acid
Acetic acid, [6-(morpholin-4-yl)-1,3-dioxo-1H,3H-benzo[de]isoquinolin-2-yl] ester
No Match
Adamantane-1,3,5,7-tetracarboxylic acid
1,3-Dioxane, 4,5-dimethyl-2-pentadecyl-
No Match
Cholestan-3-one, cyclic 1,2-ethanediyl acetal, (5 π -
No Match
1-Pentanol, 2,2-dimethyl-
2-Hexadecanol
11,13-Dihydroxy-tetradec-5-enoic acid, methyl ester

Cyclopropanedodecanoic acid, 2-octyl-, methyl ester

Cyclopentadecanone, 4-methyl-

Geranyl vinyl ether

No Match

No Match

2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl

Thiophene, 2-(1,1-dimethylethyl)-

2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-

2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-

N-Benzyl-2-[1-(4-methoxy-phenyl)-1H-tetrazol-5-ylsulfanyl]-acetamide

4-Formyl-3,5-dimethyl-1H-pyrrole-2-carbonitrile

2,4-Imidazolidinedione, 5-[3,4-bis[(trimethylsilyl)oxy]phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-

Benzo[b]dihydropyran, 6-hydroxy-4,4,5,7,8-pentamethyl-

7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione

Ethaneperoxic acid, 1-cyano-1-[2-(2-phenyl-1,3-dioxolan-2-yl)ethyl]pentyl ester

No Match

No Match

No Match

No Match

No Match

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Heptasiloxane, 1,1,3,3,5,5,7,7,9,9,11,11,13,13-tetradecamethyl-
No Match
No Match

Sample EE

Megestrol Acetate
Actinobolin
1H-2,8a-Methanocyclopenta[a]cyclopropa[e]cyclodecen-11-one, 5,6-bis(acetyloxy)-4-[(acetyloxy)methyl]-1a,2,5,5a
3-(N,N-Dimethylaurylammonio)propanesulfonate
Propionitrile, 3-[1-[4-[1-(2-cyanoethoxy)cyclohexyl]buta-1,3-dienyl]cyclohexyloxy]-
Rhodoviolascin
6,9,12-Octadecatrienoic acid, methyl ester
Methyl 15-methoxyhexadecanoate
1,2,3,4,5-Cyclopentanepentol
Acetic acid, cyano-, 1,1-dimethylethyl ester
1,3,5-Cyclohexanetriamine
Hydrazinecarboxylic acid, 1,1-dimethylethyl ester
Trimethyl(4-tert.-butylphenoxy)silane
2,4,6-Cycloheptatrien-1-one, 3,5-bis-trimethylsilyl-
Cyclopentane, (2-methylpropyl)-
Boroxin, tris(2,3-dimethylbut-2-yl)-
1-Pentene, 5-butoxy-
No Match
2-(1-Cyclopent-1-enyl-1-methylethyl)cyclopentanone
Carbamic acid, (cyanomethyl)-, 1,1-dimethylethyl ester
5-Hexenoic acid, methyl ester
Ni(ii)-2,7-bis[2-hydroxy-5,5-dimethyl-4,5-dihydro-1H-pyrrol-4-on-3-yl]-3,6-diazaocta-2,6-dien
4-Keto-3,3-dimethylhexanoic acid, ethyl ester
1-Octanol, 2,7-dimethyl-
Octadecane, 1-isocyanato-
Octadecane, 1-isocyanato-
No Match
.beta.-Hydroxyquebrachamine
Cyclopropanedodecanoic acid, 2-octyl-, methyl ester
Tetracyclo[11.4.0.0(1,10).0(5,9)]heptadec-12-ene-2π6-diol-15-one, 5-methyl ethylene diacetal
2-Octen-1-ol
Cyclopentane, (3-methylbutyl)-
Acetic acid, trichloro-, heptyl ester
Hexadecane, 1,1-bis(dodecyloxy)-
Cyclohexane, (1,1-dimethylethyl)-
Butyl aldoxime, 2-methyl-, syn-
Hexadecane, 1,1-bis(dodecyloxy)-
Cyclopropanedodecanoic acid, 2-octyl-, methyl ester
Cyclopentadecanone, 4-methyl-

Cyclopentadecanone, 4-methyl-
2-Hexadecanol
Pentadec-7-ene, 7-bromomethyl-
cis-11-Hexadecenal
Z-(13,14-Epoxy)tetradec-11-en-1-ol acetate
Z-(13,14-Epoxy)tetradec-11-en-1-ol acetate
Pseudosolasodine diacetate
No Match
m-Toluic acid, 3,5-difluorophenyl ester
Benzamide, 3-methyl-N-[5-trifluoromethyl-2-(2,2,3,3-tetrafluoropropoxy)phenyl]-
No Match
No Match
No Match
No Match
No Match
No Match
No Match
No Match
2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl-
Cholest-22-ene-21-ol, 3,5-dehydro-6-methoxy-, pivalate
Tetrahydropyranyl ether of citronellol
No Match
2-Hexadecanol
Cyclopropanedodecanoic acid, 2-octyl-, methyl ester
Cyclopentadecanone, 4-methyl-
Geranyl vinyl ether
No Match
No Match
Methyl 15-methoxyhexadecanoate
No Match
No Match
Lycorenan-7-one, 5-hydroxy-1-methyl-9,10-[methylenebis(oxy)]-, (5 π -
3-buten-2-one, 4-(5,5-dimethyl-1-oxaspiro[2.5]oct-4-yl)
para-Methoxybenzenethiol
No Match
No Match
No Match
2H-Benzimidazol-2-imine, 1,3-dihydro-1,3-dimethyl-N-[(dimethylamino)sulfonyl]-
Pyrrole-3-carbonitrile, 5-formyl-2,4-dimethyl-
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
Spiro[2,4,5,6,7,7a-hexahydro-2-oxo-4,4,7a-trimethylbenzofuran]-7,2'-(oxirane)
N-Benzyl-2-[1-(4-methoxy-phenyl)-1H-tetrazol-5-ylsulfanyl]-acetamide
4-Formyl-3,5-dimethyl-1H-pyrrole-2-carbonitrile
N-Benzyl-2-[1-(4-methoxy-phenyl)-1H-tetrazol-5-ylsulfanyl]-acetamide
9-Desoxo-9-x-acetoxy-3,8,12-tri-O-acetylingol
No Match
No Match
No Match
Phenol, 4,4'-(1,2-diethyl-1,2-ethanediyl
Phenol, 4,4'-(1,2-diethyl-1,2-ethanediyl
Decanoic acid, decyl ester
Benzo[b]dihydropyran, 6-hydroxy-4,4,5,7,8-pentamethyl-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
Canthaxanthin
Canthaxanthin

Caprolactone oxime, (NB)-O-[(diethylboryloxy)(ethyl)boryl]-
Cyclopentane, (2-methylpropyl)-
Hexadecane, 1,1-bis(dodecyloxy)-
4-(1,5-Dihydroxy-2,6,6-trimethylcyclohex-2-enyl)but-3-en-2-one
1-iso-Propyl-3,6-diazahomadamantan-9-one
Ni(ii)-2,7-bis[2-hydroxy-5,5-dimethyl-4,5-dihydro-1H-pyrrol-4-on-3-yl]-3,6-diazaocta-2,6-dien
Ethanedioic acid, bis(1-methylpropyl) ester
4-Keto-3,3-dimethylhexanoic acid, ethyl ester
Hexadecane, 1,1-bis(dodecyloxy)-
Octadecane, 1-isocyanato-
1,3,2-Dioxaborolane, 2,4-diethyl-
Cholestan-3-one, 4,4-dimethyl-, cyclic 1,2-ethanediyl acetal, (5 π -
Cholestan-3-one, 4,4-dimethyl-, cyclic 1,2-ethanediyl acetal, (5 π -
Cholestan-3-one, 4,4-dimethyl-, cyclic 1,2-ethanediyl acetal, (5 π -
Benzenecetic acid, π 4-bis[(trimethylsilyl)oxy]-, methyl ester
Benzenecetic acid, π 4-bis[(trimethylsilyl)oxy]-, methyl ester
3-Methylcyclopentadecylcarbamic acid, t-butyl ester
Tetrahydropyranyl ether of citronellol
Deoxyspergualin
Deoxyspergualin
10-Methyl-E-11-tridecen-1-ol propionate
Cyclopentadecanone, 4-methyl-
Methyl 16-methoxyheptadecanoate
No Match
No Match
No Match
Pyridine, 2-[[[(1,1-dimethylethyl)thio]methyl]-
No Match
Thiophene, 2,5-diethyl-
2,2,6,7-Tetramethyl-10-oxatricyclo[4.3.0.1(1,7)]decan-5-one
1(3H)-Isobenzofuranone, 6-(dimethylamino)-3,3-bis[4-(dimethylamino)phenyl]-
1,3-Dioxane, 5-(hexadecyloxy)-2-pentadecyl-, cis-
No Match
No Match
No Match
4-Formyl-3,5-dimethyl-1H-pyrrole-2-carbonitrile
Pyrrole-3-carbonitrile, 5-formyl-2,4-dimethyl-
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
2H-Benzimidazol-2-one, 1,3-dihydro-5-methyl-
2,7-Octanedione, 4,4-dimethyl-3-[2-(1-hydroxy-1-methylethyl)-3-methyl-3-butenylidene]-
No Match
No Match
Bis(pentamethylcyclotrisiloxy)tetramethyldisiloxane
2,4-Imidazolidinedione, 5-[3,4-bis[(trimethylsilyl)oxy]phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-
Decanoic acid, octadecyl ester
No Match
4-Picolylamine, N,N-dinonyl-
Imidazole, 5-fluoro-2-methyl-
Benzo[b]dihydropyran, 6-hydroxy-4,4,5,7,8-pentamethyl-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
No Match
Phthalic acid, butyl dodecyl ester
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-
No Match
Rhodopin

No Match
No Match
No Match
No Match
No Match

Sample GG

Rhodoviolascin
Rhodoviolascin
Rhodoviolascin
2-Propanamine, 2-methyl-
1H-Imidazole-4-methanol, 5-methyl-
Benzene, 1,3,5-trichloro-2-(1-methylethyl)-
2-[4-Cyclohexylbutanoylamino]-3-chloro-1,4-naphthoquinone
Indole, 6-methyl-2-(3-pyridyl)-
Hexadecane, 1,1-bis(dodecyloxy)-
8-Hydroxy-2-octanone
5-(4,5-Dihydro-3H-pyrrol-2-ylmethylene)-4,4-dimethylpyrrolidin-2-one
4-Keto-3,3-dimethylhexanoic acid, ethyl ester
Oxirane, 2-methyl-2-(2-methylpropyl)-
Oxirane, 2-methyl-2-(2-methylpropyl)-
Hexadecane, 1,1-bis(dodecyloxy)-
Eicosane, 2-cyclohexyl-
1,3-Dioxolane, 2-pentadecyl-
Cyclohexanebutanal, 2-methyl-3-oxo-, cis-
4-Hydroxymandelic acid, ethyl ester, di-(O-t-butyl dimethylsilyl)
4-Hydroxymandelic acid, ethyl ester, di-(O-t-butyl dimethylsilyl)
L-Serine, N,o-bis(m-toluoyl)-, methyl ester
Benzenecetic acid, π 4-bis[(trimethylsilyl)oxy]-, methyl ester
1,2-15,16-Diepoxyhexadecane
1-Hexadecyn-3-ol, 3,7,11,15-tetramethyl-
8,8,9-Trimethyl-deca-3,5-diene-2,7-dione
Thiophene, 2,5-diethyl-
No Match
No Match
2H-Benzimidazol-2-one, 1,3-dihydro-1-methyl-
2H-Benzimidazol-2-one, 1,3-dihydro-1-methyl-
Pyrrole-2-carbonitrile, 5-formyl-3,4-dimethyl-
2H-Benzimidazol-2-one, 1,3-dihydro-1-methyl-
2-[1-(4-Methoxy-phenyl)-1H-tetrazol-5-ylsulfanylmethyl]-1H-benzimidazole
No Match
No Match
No Match
Bis(pentamethylcyclotrisiloxy)tetramethyldisiloxane
Decanoic acid, octadecyl ester
1-(4-Hydroxy-3,5-di-tert-butylphenyl)-2-methyl-3-morpholinopropan-1-one
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione
No Match
No Match
Phthalic acid, pentyl tridec-2-yn-1-yl ester
No Match
Verapamil
Phthalic acid, 2-ethylhexyl propyl ester
1,2-Benzenedicarboxylic acid, butyl octyl ester
No Match

No Match

Glycine, N-[(3 π 5 π 12 π -24-oxo-3,12-bis[(trimethylsilyl)oxy]cholan-24-yl)-, methyl ester

1-Monolinoleoylglycerol trimethylsilyl ether

No Match

No Match

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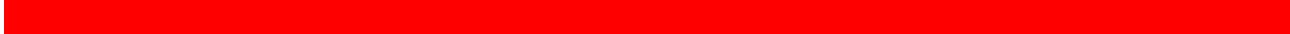
No Match

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1-Monolinoleoylglycerol trimethylsilyl ether

Cholestan-3-one, cyclic 1,2-ethanediyl acetal, (5 π -

No Match



RETENTION TIME (min)	PEAK AREA	CALCULATED CONCENTRATION PPM (mg/kg)
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57.652	1.05E+08	0.24
57.817	1.02E+08	0.23
58.663	1.07E+08	0.24
59.069	1.41E+08	0.32
59.493	1.22E+08	0.27
60.497	1.16E+08	0.26
60.827	1.20E+08	0.27

22.834	1.27E+08	0.27
32.115	4.47E+08	0.94

18.307	1.41E+08	0.30
22.942	2.50E+08	0.51
58.047	1.06E+08	0.22
58.157	1.11E+08	0.23
58.207	1.33E+08	0.27
58.841	1.14E+08	0.23
58.891	1.06E+08	0.22
58.922	1.14E+08	0.23
58.948	1.28E+08	0.26
59.026	1.78E+08	0.36
59.184	1.17E+08	0.24
59.409	1.25E+08	0.26
59.439	1.22E+08	0.25
59.484	1.19E+08	0.24
59.565	1.27E+08	0.26
59.811	1.34E+08	0.27
60.098	1.07E+08	0.22
60.236	1.68E+08	0.34
60.361	1.18E+08	0.24
60.639	1.25E+08	0.26
60.725	1.09E+08	0.22

57.754	1.03E+08	0.18
57.942	1.05E+08	0.19
57.98	1.09E+08	0.19
58.622	1.27E+08	0.23
59.037	1.09E+08	0.19
59.223	1.16E+08	0.21
59.279	1.01E+08	0.18
59.332	1.43E+08	0.26
59.451	1.42E+08	0.25
59.489	1.44E+08	0.26
59.527	1.17E+08	0.21
59.566	1.72E+08	0.31

59.802	1.44E+08	0.26
60.541	1.06E+08	0.19
61.018	1.10E+08	0.20
61.256	1.15E+08	0.21
61.585	1.18E+08	0.21
61.678	1.07E+08	0.19
61.821	1.02E+08	0.18
62.595	1.03E+08	0.18

56.901	1.06E+08	0.24
57.233	1.94E+08	0.44
57.43	1.13E+08	0.25
57.557	1.51E+08	0.34
57.686	1.66E+08	0.37
57.877	1.42E+08	0.32
57.942	1.13E+08	0.25
58.087	1.01E+08	0.23
58.157	2.11E+08	0.48
58.239	1.97E+08	0.44
58.327	2.16E+08	0.49
58.404	1.22E+08	0.27
58.574	1.12E+08	0.25
58.633	1.09E+08	0.25
58.698	1.42E+08	0.32
58.724	1.96E+08	0.44
58.783	2.09E+08	0.47
58.825	1.41E+08	0.32
58.907	1.45E+08	0.33
59.364	1.16E+08	0.26
59.417	2.21E+08	0.50
59.504	1.13E+08	0.25
59.602	1.61E+08	0.36
59.716	1.22E+08	0.27
59.742	1.06E+08	0.24
59.881	1.30E+08	0.29
60.148	1.47E+08	0.33
60.768	1.92E+08	0.43
60.816	1.32E+08	0.30
60.931	1.09E+08	0.25
61.51	1.27E+08	0.29
61.544	1.14E+08	0.26
61.585	1.67E+08	0.38
61.641	1.93E+08	0.43
61.75	1.41E+08	0.32
61.948	1.43E+08	0.32
62.442	1.11E+08	0.25
63.066	1.36E+08	0.31
63.361	1.01E+08	0.23
63.481	1.19E+08	0.27

14.655	1.68E+08	0.02
56.609	1.47E+08	0.02
59.605	1.19E+08	0.01

59.83	1.05E+08	0.01
60.024	2.23E+08	0.03
60.106	1.15E+08	0.01

51.112	1.17E+08	0.02
60.625	5.71E+08	0.12
64.09	4.19E+08	0.09

23.588	3.38E+08	0.03
28.687	1.43E+08	0.01

57.492	1.32E+08	0.03
57.587	1.08E+08	0.03
58.413	1.24E+08	0.03
58.853	1.38E+08	0.03
58.989	1.04E+08	0.03
59.048	1.21E+08	0.03
59.452	1.34E+08	0.03
59.624	1.73E+08	0.04
59.701	1.70E+08	0.04
59.745	1.21E+08	0.03
60.461	1.03E+08	0.03
60.867	1.23E+08	0.03
61.456	1.42E+08	0.04
61.97	1.02E+08	0.03
62.178	1.25E+08	0.03

0.127	412029	0.02
0.695	369761	0.01
0.753	1.98E+06	0.07
0.808	843203	0.03
0.837	852377	0.03
0.977	783296	0.03
1.024	1.05E+06	0.04
1.072	202603	0.01
1.093	538591	0.02
1.177	460857	0.02
1.295	398594	0.01
1.771	2.55E+06	0.10
1.927	2.80E+06	0.11
1.976	1.62E+06	0.06
2.364	5.19E+06	0.20
2.474	1.84E+06	0.07
3.887	97033	0.00
4.118	552677	0.02
5.692	2.13E+07	0.81
5.869	46110	0.00
7.579	580536	0.02
7.989	365425	0.01
8.256	1.28E+07	0.49
8.404	4.66E+06	0.18

8.732	22774	0.00
9.146	577107	0.02
9.26	257819	0.01
9.87	312482	0.01
10.258	816207	0.03
10.434	110382	0.00
10.612	374241	0.01
11.245	1.85E+06	0.07
11.27	3.03E+06	0.11
11.402	1.07E+06	0.04
11.594	4.84E+06	0.18
12.014	534380	0.02
12.225	573114	0.02
12.471	484343	0.02
12.563	558428	0.02
12.648	389667	0.01
12.888	4.94E+06	0.19
12.933	1.52E+06	0.06
13.411	1.89E+06	0.07
13.461	515124	0.02
13.689	1.96E+06	0.07
13.735	1.06E+06	0.04
13.898	439754	0.02
14.267	663346	0.02
14.319	528538	0.02
14.632	518802	0.02
14.926	799690	0.03
14.98	683467	0.03
15.018	515645	0.02
15.266	2.69E+06	0.10
15.438	3.44E+06	0.13
15.583	510828	0.02
16.023	764087	0.03
16.222	715854	0.03
16.721	2.25E+07	0.85
18.274	630231	0.02
18.781	851661	0.03
20.446	788707	0.03
20.89	3.63E+07	1.37
21.189	784915	0.03
21.246	1.54E+06	0.06
21.284	540833	0.02
21.312	313593	0.01
21.382	644276	0.02
21.415	196218	0.01
21.977	649218	0.02
24.292	200878	0.01
24.32	140753	0.01
25.583	1.27E+06	0.05
27.024	414824	0.02
49.907	4.79E+06	0.18
49.967	413152	0.02
50.947	604947	0.02
51.587	2.35E+06	0.09
51.641	722668	0.03

51.678	446098	0.02
51.809	460906	0.02
52.011	494485	0.02
52.094	600506	0.02
52.133	601611	0.02
52.264	414905	0.02
52.515	464943	0.02
52.6	1.67E+06	0.06
52.632	1.17E+06	0.04
52.669	576175	0.02
52.729	880095	0.03
52.781	544917	0.02
52.802	480292	0.02
52.826	528857	0.02
52.923	451642	0.02
53.098	492903	0.02
53.477	460618	0.02
53.616	526558	0.02
53.713	414572	0.02
53.845	555218	0.02
54.005	800921	0.03
54.238	1.02E+07	0.39


0.055	413228	
0.373	16087	0.04
0.666	1.01E+06	0.01
0.732	257031	0.03
0.752	765203	0.02
0.807	474116	0.02
1.762	483714	0.08
2.905	1.93E+06	0.53
5.681	1.23E+07	0.17
6.263	4.03E+06	0.36
8.236	8.23E+06	0.05
8.385	1.25E+06	0.08
8.405	1.86E+06	0.12
8.558	2.81E+06	0.02
8.632	472081	0.00
13.256	42352	0.01
13.384	210657	0.00
13.443	34029	0.02
13.509	437173	0.00
13.694	115211	0.00
14.91	30627	0.01
15.494	332611	0.03
16.02	795642	0.03
16.213	591494	0.01
16.325	158928	0.01
16.346	184595	0.02
16.486	522341	0.03
16.515	627403	0.01
16.558	166071	0.04
18.268	891945	0.04
18.778	902673	0.07

19.401	1.57E+06	0.00
21.094	88423	0.00
21.191	25586	0.08
21.258	1.86E+06	0.04
24.285	843914	0.02
25.583	457778	0.02
28.167	361730	0.05
30.214	1.13E+06	0.02
30.389	402879	0.01
32.096	182270	0.01
32.123	267704	0.01
33.208	285871	0.02
42.379	547927	0.06
44.386	1.39E+06	0.02
47.861	496779	0.02
47.922	457055	0.21
49.909	4.96E+06	0.05
50.945	1.06E+06	0.02
51.102	447631	0.05
51.64	1.06E+06	0.04
52.089	912824	0.02
52.176	439830	0.02
52.467	461414	0.05
52.596	1.12E+06	0.05
52.637	1.14E+06	0.03
52.695	682113	0.03
52.799	657469	0.02
52.953	527143	0.02
53.01	459075	0.03
53.131	790943	0.03
53.218	597704	0.03
53.253	619591	0.02
53.373	556539	0.02
53.468	551217	0.05
53.536	1.21E+06	0.07
53.656	1.54E+06	0.02
54.012	438945	0.52
54.236	1.20E+07	

0.064	179890	0.01
0.729	580306	0.02
0.752	638517	0.02
0.769	594892	0.02
0.807	864893	0.03
0.84	1.03E+06	0.03
0.977	799965	0.02
1.024	1.19E+06	0.04
1.147	180318	0.01
1.757	5.46E+06	0.17
2.082	1.07E+06	0.03
2.465	1.61E+06	0.05
2.56	580671	0.02
2.589	411789	0.01
2.627	907952	0.03

4.111	452707	0.01
5.677	1.39E+07	0.43
6.372	438771	0.01
6.407	1.06E+06	0.03
6.429	1.31E+06	0.04
6.524	161109	0.00
6.717	61364	0.00
7.318	12102	0.00
8.235	5.18E+06	0.16
8.283	2.75E+06	0.09
8.396	4.40E+06	0.14
8.658	65515	0.00
9.136	536439	0.02
9.5	294114	0.01
9.534	358299	0.01
11.248	3.67E+06	0.11
11.405	411983	0.01
11.425	133563	0.00
11.595	3.06E+06	0.10
12.45	1.12E+06	0.03
12.533	1.05E+06	0.03
12.869	5.15E+06	0.16
12.901	2.07E+06	0.06
13.389	3.21E+06	0.10
13.494	1.18E+06	0.04
13.522	4.13E+06	0.13
13.901	428863	0.01
14.626	558634	0.02
14.697	654354	0.02
14.984	1.81E+06	0.06
15.433	3.75E+06	0.12
16.022	1.30E+06	0.04
16.214	1.10E+06	0.03
16.365	630715	0.02
16.448	614274	0.02
16.504	855609	0.03
16.528	789245	0.02
17.927	461206	0.01
18.265	497011	0.02
18.779	717259	0.02
19.403	2.01E+06	0.06
19.484	108115	0.00
20.302	403165	0.01
20.372	856276	0.03
20.438	1.38E+06	0.04
21.049	3.05E+06	0.09
21.101	2.40E+06	0.07
21.165	726185	0.02
21.244	3.37E+06	0.10
21.347	439376	0.01
21.376	403742	0.01
21.418	221434	0.01
21.435	361445	0.01
21.983	137309	0.00
25.576	133702	0.00

27.873	413152	0.01
30.216	966684	0.03
30.41	124755	0.00
31.048	6.06E+06	0.19
31.203	442360	0.01
42.372	874374	0.03
48.326	421962	0.01
49.902	4.42E+06	0.14
50.597	442271	0.01
51.026	443292	0.01
51.81	560096	0.02
52.067	584777	0.02
52.538	699149	0.02



0.639	305287	0.01
0.808	149474	0.01
0.914	1.37E+06	0.05
1.289	147078	0.01
1.753	1.51E+06	0.06
6.386	182944	0.01
7.287	15220	0.00
8.232	3.96E+06	0.15
8.404	816809	0.03
8.553	2.49E+06	0.10
8.744	23141	0.00
8.802	28347	0.00
9.491	447163	0.02
9.511	355984	0.01
10.245	459711	0.02
10.6	167265	0.01
10.931	137534	0.01
11.278	3.63E+06	0.14
11.388	498330	0.02
11.718	208104	0.01
11.748	197062	0.01
11.995	530656	0.02
12.208	511757	0.02
12.468	657762	0.03
12.79	422849	0.02
12.914	2.39E+06	0.09
13.303	4.28E+06	0.16
13.368	1.08E+06	0.04
13.394	1.33E+06	0.05
13.443	711040	0.03
13.537	1.36E+06	0.05
13.594	612360	0.02
13.622	313215	0.01
13.682	1.25E+06	0.05
13.736	521527	0.02
14.114	124315	0.00
14.259	848643	0.03
14.622	393573	0.01
14.923	722201	0.03
14.961	260846	0.01

14.987	574127	0.02
15.431	2.59E+06	0.10
15.495	428171	0.02
16.095	444340	0.02
16.526	994197	0.04
18.274	364937	0.01
18.78	624886	0.02
20.894	2.56E+07	0.98
21.122	515089	0.02
21.249	1.16E+06	0.04
21.38	42439	0.00
22.34	22593	0.00
30.4	248334	0.01
31.047	6.26E+06	0.24
32.113	283249	0.01
50.487	2.44E+06	0.09
50.512	2.51E+06	0.10
50.589	626948	0.02
50.946	820009	0.03
51.582	2.41E+06	0.09
51.611	1.72E+06	0.07
51.675	679362	0.03
52.116	464889	0.02
52.596	1.33E+06	0.05
52.624	967376	0.04
52.657	613952	0.02
53.091	580164	0.02
53.25	452799	0.02
53.279	518071	0.02
53.328	623594	0.02
53.546	903701	0.03
53.581	487489	0.02
53.621	801252	0.03
53.686	825793	0.03
53.865	566093	0.02
53.913	1.00E+06	0.04
53.978	1.19E+06	0.05
54.016	586338	0.02
54.096	1.14E+06	0.04
54.119	435938	0.02
54.332	1.52E+06	0.06
54.375	401640	0.02
54.393	473573	0.02
54.438	1.38E+06	0.05
54.458	869830	0.03
54.48	1.44E+06	0.06
54.58	1.32E+06	0.05
54.601	699228	0.03
54.624	509909	0.02
54.639	679574	0.03
54.674	1.17E+06	0.04
54.71	854581	0.03
54.735	762630	0.03
54.786	741064	0.03
54.836	2.14E+06	0.08

54.892	1.45E+06	0.06
54.952	920867	0.04
55.008	4.84E+06	0.19
55.046	2.05E+06	0.08
55.181	1.11E+06	0.04
55.212	1.67E+06	0.06
55.283	2.33E+06	0.09
55.451	2.55E+06	0.10
55.552	1.10E+06	0.04
55.663	2.72E+06	0.10
56.016	2.04E+06	0.08
63.301	804743	0.03
64.244	1.14E+06	0.04
64.711	1.97E+06	0.08

0.124	282500	0.01
0.636	1.87E+06	0.06
0.715	676449	0.02
0.752	700428	0.02
0.77	439399	0.01
0.807	749134	0.02
0.836	1.22E+06	0.04
1.019	122432	0.00
1.142	138359	0.00
1.287	246736	0.01
1.753	4.63E+06	0.15
1.919	1.32E+06	0.04
2.448	1.28E+06	0.04
2.707	15501	0.00
2.9	5.54E+06	0.18
2.982	16059	0.00
3.866	407946	0.01
3.942	432893	0.01
4.012	584084	0.02
4.096	724261	0.02
5.667	1.99E+07	0.65
6.384	1.78E+06	0.06
8.232	6.45E+06	0.21
8.271	3.71E+06	0.12
8.396	3.29E+06	0.11
8.542	4.36E+06	0.14
9.114	460147	0.02
9.488	872012	0.03
9.661	111510	0.00
9.719	109390	0.00
9.92	1.59E+06	0.05
9.938	2.34E+06	0.08
10.062	251036	0.01
10.096	134045	0.00
10.11	145267	0.00
10.235	1.21E+06	0.04
10.402	77416	0.00
10.428	110456	0.00
11.219	1.02E+06	0.03

11.256	2.67E+06	0.09
11.391	1.08E+06	0.04
11.58	2.45E+06	0.08
11.61	1.91E+06	0.06
11.705	192373	0.01
11.724	369406	0.01
12.641	633786	0.02
12.812	793688	0.03
12.902	1.74E+06	0.06
12.942	979428	0.03
13.436	571636	0.02
13.485	1.68E+06	0.05
13.501	2.66E+06	0.09
13.585	799561	0.03
13.629	576150	0.02
13.674	2.80E+06	0.09
13.863	437243	0.01
14.097	287757	0.01
14.216	270938	0.01
14.618	821766	0.03
14.744	423299	0.01
14.911	837127	0.03
14.985	750016	0.02
15.426	2.34E+06	0.08
15.449	1.53E+06	0.05
15.562	470922	0.02
16.01	859152	0.03
16.213	1.20E+06	0.04
16.455	659932	0.02
16.505	1.17E+06	0.04
17.089	317573	0.01
18.266	1.14E+06	0.04
18.774	827236	0.03
20.347	408288	0.01
20.454	841177	0.03
20.475	453923	0.01
21.037	4.09E+06	0.13
21.107	696115	0.02
21.124	1.03E+06	0.03
21.187	1.05E+06	0.03
21.245	6.97E+06	0.23
21.329	625218	0.02
21.408	245852	0.01
21.47	249844	0.01
21.667	438555	0.01
21.701	544013	0.02
21.953	485735	0.02
23.297	470463	0.02
24.26	184008	0.01
24.299	464302	0.02
25.571	918825	0.03
30.382	643785	0.02
31.039	6.15E+06	0.20
31.161	357276	0.01
31.196	431111	0.01

36.927	1.09E+06	0.04
36.968	372676	0.01
37	249372	0.01
37.026	445051	0.01
37.285	1.04E+06	0.03
37.341	870823	0.03
44.378	1.22E+06	0.04
47.868	534637	0.02
48.249	529666	0.02
50.922	998313	0.03
50.952	458917	0.01
51.694	407617	0.01
51.731	450186	0.01
51.769	476297	0.02
52.424	400431	0.01
52.655	927101	0.03
52.702	969019	0.03
52.785	672933	0.02
53.03	642079	0.02
53.153	449667	0.01
53.26	450342	0.01
53.298	482641	0.02
53.325	444853	0.01
53.368	447209	0.01
53.516	504098	0.02
53.542	603597	0.02
53.565	584960	0.02
53.594	477171	0.02
54.06	407352	0.01
54.226	1.13E+07	0.37
54.305	929120	0.03
54.352	1.05E+06	0.03
54.372	770624	0.03
54.608	1.20E+06	0.04
54.645	526605	0.02
54.745	795200	0.03
54.785	1.27E+06	0.04
54.819	962855	0.03
54.848	1.17E+06	0.04
54.992	2.51E+06	0.08
55.017	3.03E+06	0.10
55.477	877827	0.03
63.592	4.70E+06	0.15
64.152	3.58E+06	0.12
64.658	1.17E+06	0.04

0.703	659636	0.02
0.751	1.07E+06	0.03
0.836	230274	0.01
0.913	1.65E+06	0.05
1.017	156725	0.00
1.752	2.38E+06	0.07
1.921	517951	0.02
1.983	92341	0.00

2.6	36031	0.00
2.892	3.25E+06	0.10
3.86	226465	0.01
4.014	203183	0.01
6.369	879839	0.03
6.392	1.28E+06	0.04
8.227	5.73E+06	0.18
8.262	4.00E+06	0.12
8.336	616268	0.02
8.386	4.41E+06	0.14
8.548	5.56E+06	0.17
8.705	316634	0.01
8.775	28252	0.00
8.814	57157	0.00
13.045	1.59E+07	0.49
13.303	88848	0.00
13.515	356890	0.01
14.631	191960	0.01
14.899	97729	0.00
14.919	125848	0.00
15.259	2.13E+06	0.07
15.43	2.62E+06	0.08
16.008	542596	0.02
16.465	418140	0.01
16.516	590080	0.02
16.535	472251	0.01
17.096	329185	0.01
18.27	942548	0.03
18.778	807826	0.02
19.404	5.23E+06	0.16
19.499	178362	0.01
19.534	180599	0.01
20	426036	0.01
20.44	623569	0.02
20.456	850372	0.03
21.051	2.60E+06	0.08
21.1	1.60E+06	0.05
21.13	1.93E+06	0.06
21.185	663053	0.02
21.25	5.97E+06	0.18
21.434	438734	0.01
21.896	506489	0.02
21.978	875869	0.03
22.354	27749	0.00
25.578	1.33E+06	0.04
27.027	416022	0.01
28.159	377200	0.01
30.209	1.14E+06	0.03
30.392	218048	0.01
31.049	5.75E+06	0.18
31.209	1.21E+06	0.04
32.107	71664	0.00
42.368	544234	0.02
42.394	412566	0.01
44.382	676472	0.02

44.399	443411	0.01
47.866	631605	0.02
48.355	467919	0.01
48.409	417668	0.01
50.669	506051	0.02
51.683	848114	0.03
51.717	471301	0.01
51.823	837371	0.03
52.137	504969	0.02
52.219	461984	0.01
52.29	403957	0.01
52.574	1.82E+06	0.06
52.663	1.49E+06	0.05
52.709	599650	0.02
52.731	641002	0.02
52.771	775728	0.02
52.793	448110	0.01
52.825	418798	0.01
52.936	1.17E+06	0.04
53.048	517353	0.02
53.267	501474	0.02
53.352	551385	0.02
53.551	1.76E+06	0.05
53.574	1.16E+06	0.04
53.619	1.55E+06	0.05
53.662	1.52E+06	0.05
53.693	750075	0.02
53.724	910209	0.03
53.843	604874	0.02
53.872	447806	0.01
53.891	491976	0.01
53.955	750446	0.02
53.969	594619	0.02
53.999	604002	0.02
54.032	559885	0.02
54.053	936173	0.03
54.134	468046	0.01
54.159	460410	0.01
54.228	4.35E+06	0.13
54.248	5.08E+06	0.16
54.306	576988	0.02
54.324	564457	0.02
54.351	601838	0.02
54.372	511512	0.02
54.388	462580	0.01
54.414	1.03E+06	0.03
54.47	2.53E+06	0.08
54.492	873315	0.03
54.508	750868	0.02
54.584	759160	0.02
54.614	2.13E+06	0.07
54.655	2.82E+06	0.09
54.71	714527	0.02
54.727	718618	0.02
54.744	672108	0.02

54.77	1.20E+06	0.04
54.789	787850	0.02
54.82	971478	0.03
54.844	1.06E+06	0.03
54.876	1.21E+06	0.04
54.928	2.09E+06	0.06
55.018	1.20E+06	0.04
55.042	1.11E+06	0.03
55.056	1.08E+06	0.03
55.076	1.05E+06	0.03
55.092	1.38E+06	0.04
55.13	1.31E+06	0.04
55.148	898762	0.03
55.166	923308	0.03
55.183	849252	0.03
55.219	1.79E+06	0.05
55.243	864166	0.03
55.267	1.49E+06	0.05
55.313	1.67E+06	0.05
55.425	1.41E+06	0.04
55.524	1.26E+06	0.04
55.54	1.43E+06	0.04
55.592	2.10E+06	0.06
55.873	2.37E+06	0.07
63.254	5.26E+06	0.16
63.341	5.75E+06	0.18
63.497	3.09E+06	0.09
63.642	2.69E+06	0.08
63.697	2.76E+06	0.08
63.753	2.17E+06	0.07
63.795	4.09E+06	0.13
63.958	4.19E+06	0.13
64	4.15E+06	0.13
64.046	1.70E+06	0.05
64.069	4.14E+06	0.13
64.12	2.07E+06	0.06
64.142	2.66E+06	0.08
64.212	1.52E+06	0.05
64.285	2.01E+06	0.06
64.305	1.74E+06	0.05
64.324	1.92E+06	0.06
64.352	4.22E+06	0.13
64.383	1.65E+06	0.05
64.429	2.59E+06	0.08
64.471	1.27E+06	0.04
64.547	1.52E+06	0.05
64.566	2.15E+06	0.07
64.581	1.96E+06	0.06
64.62	1.88E+06	0.06
64.655	1.54E+06	0.05
64.675	2.47E+06	0.08
64.711	4.34E+06	0.13
64.758	1.26E+06	0.04
64.776	1.41E+06	0.04
64.806	1.62E+06	0.05

64.821	1.37E+06	0.04
64.842	1.66E+06	0.05
64.858	1.24E+06	0.04
64.931	1.17E+06	0.04
64.951	711712	0.02

0.024	213148	0.01
0.045	189372	0.01
0.064	148841	0.01
0.752	219927	0.03
1.771	822466	0.38
2.346	9.96E+06	0.08
2.461	2.16E+06	0.00
2.674	125356	0.01
3.87	198526	0.59
5.667	1.54E+07	0.01
6.389	282736	0.24
8.235	6.23E+06	0.03
8.389	673546	0.09
8.546	2.44E+06	0.02
9.949	474157	0.01
9.989	223625	0.02
10.243	478905	0.03
11.586	890228	0.77
13.044	2.00E+07	0.00
13.22	17261	0.03
13.278	891060	0.00
13.627	16554	0.04
15.425	943691	0.02
15.448	424085	0.03
18.265	831777	0.02
18.773	532081	0.02
19.336	640895	0.03
20.396	689560	0.18
20.994	4.65E+06	0.12
21.061	3.15E+06	0.03
21.145	793101	0.03
21.179	793129	0.08
21.246	2.07E+06	0.03
21.29	665973	0.02
21.366	631183	0.02
21.423	489288	0.02
21.957	572742	0.03
25.574	752510	0.05
30.228	1.21E+06	0.22
31.044	5.61E+06	0.02
31.175	613137	0.02
31.317	400821	0.02
32.107	578565	0.02
32.16	413436	0.00
33.18	73055	0.01
42.361	374975	0.01
42.375	252832	0.02
47.011	427348	0.03

48.295	697748	0.07
49.883	1.89E+06	0.11
49.897	2.95E+06	0.05
51.549	1.41E+06	0.02
51.653	420183	0.02
51.847	421927	0.02
52.095	442198	0.02
52.429	562318	0.02
52.549	438438	0.02
52.571	513776	0.05
52.611	1.20E+06	0.03
52.643	812339	0.02
52.689	485717	0.02
52.739	402505	0.02
52.822	572955	0.02
52.883	414006	0.02
52.922	634666	0.02
53.001	511170	0.02
53.25	421711	0.03
53.284	828862	0.03
53.501	702054	0.02
53.542	496214	0.02
53.556	414957	0.03
53.584	835512	0.02
53.654	468530	0.02
53.679	436831	0.02
53.707	634176	0.02
53.749	412770	0.02
53.771	447851	0.02
53.793	463702	0.02
53.842	445534	0.02
53.886	485973	0.03
53.904	897348	0.02
54.001	459335	0.02
54.049	429687	0.03
54.12	757804	0.03
54.151	851770	0.16
54.216	4.25E+06	0.26
54.232	6.84E+06	0.02
54.782	568616	



SWEAT

COMPOUND NAME	RETENTION TIME (min)
UNUSED INFILL	
Sample A	
Methanecarbothiolic acid	3.24
Cholestane, 3,5-dichloro-6-nitro-, (3.be	59.673
3,5,9-Trioxa-5-phosphaheptacos-18-en-1-a	59.716
Trilinolein	60.755
3,5,9-Trioxa-5-phosphaheptacos-18-en-1-a	63.276
Sample C	
No Match	21.454
No Match	25.073
No Match	25.212
No Match	25.28
No Match	26.782
No Match	27.046
No Match	27.184
No Match	27.218
No Match	27.344
No Match	27.479
2-Butenoic acid, 2-methyl-, 2-(acetyloxy)-1,1a,2,3,4,6,7,10,11,11a-decahydro-7,10-dihydroxy-1,1,3,6,9-pentamethyl-4a,7a-epoxy-5H-cyclopenta[a]cyclopropa[f]cycloundecen-11-yl ester, [1aR-[1aR	27.603
No Match	27.735
No Match	27.918
No Match	28.047
No Match	28.187
No Match	28.232
No Match	28.264
No Match	28.309
No Match	28.38
No Match	28.456
No Match	28.531
No Match	28.557
3,9beta14,15-Diepoxypregn-16-en-20-one, 3,11n18-triacetoxy-	28.639
3,9beta14,15-Diepoxypregn-16-en-20-one, 3,11n18-triacetoxy-	28.676
2H-1,4-Benzodiazepin-2-one, 7-chloro-1,3-dihydro-1-methyl-5-[4-[(trimethylsilyl)oxy]phenyl]-	28.777
No Match	28.86
No Match	28.915
No Match	29.029
No Match	29.117
No Match	29.166
No Match	29.248
No Match	29.463
No Match	29.542
No Match	29.632
No Match	29.668
No Match	29.708
No Match	29.764
No Match	29.797
No Match	29.834
9-Hexadecenoic acid, eicosyl ester, (Z)-	29.873
2-Nonadecanone 2,4-dinitrophenylhydrazine	29.965
Oleic Acid	29.996

Oleic acid, eicosyl ester	30.046
Oleic acid, eicosyl ester	30.083
Octadecanoic acid, 1-[(tetradecyloxy)carbonyl]pentadecyl ester	30.157
2-Nonadecanone 2,4-dinitrophenylhydrazine	30.178
Rhodopin	30.204
No Match	30.234
No Match	30.38
No Match	30.453
No Match	30.481
No Match	30.509
Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl)-	30.553
No Match	30.62
No Match	30.662
No Match	30.707
No Match	30.74
No Match	30.79
No Match	30.832
No Match	30.86
9,10-Secocholesta-5,7,10(19)-triene-1,3,25-triol, (3 π 5Z,7E)-	30.899
Cholesta-8,24-dien-3-ol, 4-methyl-, (3 π 4 π -	30.938
No Match	30.971
No Match	30.998
No Match	31.063
No Match	31.101
No Match	31.171
No Match	31.232
No Match	31.276
No Match	31.341
No Match	31.364
No Match	31.435
No Match	31.488
No Match	31.522
No Match	31.555
No Match	31.63
No Match	31.687
Phthalic acid, 2,7-dimethyloct-7-en-5-yn-4-yl ethyl ester	31.8
Phthalic acid, 2,7-dimethyloct-7-en-5-yn-4-yl ethyl ester	31.832
Tetracosamethyl-cyclododecasiloxane	31.858
Phthalic acid, 6-ethyl-3-octyl butyl ester	31.924
Phthalic acid, isobutyl tridec-2-yn-1-yl ethyl ester	31.958
Phenol, 2-methyl-4-(1,1,3,3-tetramethylbutyl)-	32.08
Didodecyl phthalate	32.167
Didodecyl phthalate	32.187
cis-1-Chloro-9-octadecene	32.251
7-Heptadecene, 17-chloro-	32.29
Hexadecane, 1,1-bis(dodecyloxy)-	32.321
13-Octadecenal, (Z)-	32.375
Benzene, (1-methylnonadecyl)-	32.471
Benzene, (1-methyldodecyl)-	32.498
Benzene, (1-methyldodecyl)-	32.516
Benzene, (1-methylhexadecyl)-	32.763
Pentacosane, 13-phenyl-	32.957
Benzaldehyde, 3-(4-chlorophenoxymethyl)-	33.029
10,13-Octadecadiynoic acid, methyl ester	33.055
Pentadecanoic acid, 13-methyl-, methyl ester	33.121
	33.142
Pentadecanoic acid, 13-methyl-, methyl ester	33.179
No Match	33.384

Pentacosane, 13-phenyl-	33.424
5-(2-Bromo-3-phenyl-propionyl)-dihydrofuran-2-one	33.568
No Match	33.619
No Match	33.708
No Match	33.78
No Match	33.819
Benzene, (1-ethylododecyl)-	33.989
Benzene, (1-ethyloctyl)-	34.03
Benzene, (1-ethylododecyl)-	34.069
2-t-Butyl-6-[2-hydroxy-2-(2,4,6-trimethylphenyl)ethyl]-[1,3]dioxin-4-one	34.125
Benzaldehyde, 3-(2-nitrophenoxymethyl)-4-methoxy-	34.151
Phthalic acid, butyl hex-2-yn-4-yl ester	34.192
Ethaneperoxoic acid, 1-cyano-1-[2-(2-phenyl-1,3-dioxolan-2-yl)ethyl]pentyl ester	34.227
Phthalic acid, heptyl hex-2-yn-4-yl ester	34.271
Dibutyl phthalate	34.303
No Match	34.393
Retinol	34.485
1,3-Dioxolane-4-methanol, 2-pentadecyl-,	34.535
1-Ethoxy-1-n-decyloxy-1-silacyclopentane	34.565
9,10-Secochola-5,7,10(19)-trien-24-al, 3-hydroxy-, (3π5Z,7E)-	34.61
Ethyl iso-allocholate	34.653
1-Heptatriacotanol	34.701
Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl)-	34.773
Benzene, (1-methylnonyl)-	34.971
Benzene, (1-methylhexadecyl)-	35.009
Benzene, (1-methyltridecyl)-	35.048
Benzene, (1-methylnonadecyl)-	35.12
Hexadecanoic acid, octadecyl ester	35.251
No Match	35.342
No Match	35.385
Octadecanoic acid, eicosyl ester	35.448
No Match	35.475
No Match	35.512
No Match	35.587
No Match	35.644
No Match	35.684
No Match	35.755
No Match	35.842
No Match	35.951
No Match	36.042
No Match	36.078
No Match	36.141
Benzoic acid, 2-(12-heptadecenyl)-6-methoxy-, methyl ester	36.249
No Match	36.286
3-Isopropyl-5,5-dimethyl-1,2,3,4a,5,6,7,8,9,9a-decahydro-4-oxa-3-azafluorene-2-carbonitrile	36.301
No Match	36.404
No Match	36.478
No Match	36.526
No Match	36.576
No Match	36.621
Heptacosane, 1-chloro-	36.676
No Match	36.854
No Match	36.902
9-Octadecenoic acid (Z)-, 9-octadecenyl ester, (Z)-	36.945
No Match	37.13
No Match	37.179
1-Acetyl-3-(6-methyl-3-pyridyl)-pyrazoline	37.226
No Match	37.378

No Match	37.416
No Match	37.487
No Match	37.526
No Match	37.613
No Match	37.655
No Match	37.842
No Match	37.886
No Match	37.902
No Match	37.964
No Match	38.011
No Match	38.055
9-Desoxo-9-x-acetoxy-3-desoxy-7.8.12-tri-O-acetylingol-3-one	38.088
Phorbol	38.171
Dasycarpidan-1-methanol, acetate (ester)	38.243
No Match	38.292
No Match	38.328
Ethyl iso-allocholate	38.372
1,1a,1b,1c,2a,3,3a,6a,6b,7,8,8a-dodecahydro-6b-hydroxy	38.445
Phorbol	38.481
	38.558
Hexadecanoic acid, octadecyl ester	38.61
Heptacosane, 1-chloro-	38.634
9-Hexadecenoic acid, eicosyl ester, (Z)-	38.662
No Match	38.717
9-Desoxo-9-x-acetoxy-3-desoxy-7.8.12-tri-O-acetylingol-3-one	38.774
No Match	38.823
No Match	38.903
No Match	38.943
No Match	39.016
No Match	39.099
No Match	39.142
No Match	39.178
No Match	39.259
No Match	39.301
No Match	39.343
No Match	39.423
No Match	39.482
No Match	39.602
No Match	39.726
No Match	39.743
No Match	39.778
No Match	39.836
No Match	39.939
No Match	39.952
No Match	40.717
Hexadecanoic acid, 1-(hydroxymethyl)-1,2	40.733
Benzyl butyl phthalate	41.887
9-Octadecenoic acid (Z)-, 2-hydroxy-1-(hydroxymethyl)ethyl ester	42.961

Sample F

o-Toluic acid, 2-methylphenyl ester	14.654
Hexadecane, 1,1-bis(dodecyloxy)-	20.659
nD-Xylofuranoside, methyl 2,5-di-O-methyl-	21.13
1-Hexadecanol, 2-methyl-	23.346
Hexadecane, 1,1-bis(dodecyloxy)-	27.874
1-Hexadecanol, 2-methyl-	30.201
Octadecane, 1,1'-[(1-methyl-1,2-ethanediyl)bis(oxy)]bis-	30.235
1,1-Cyclobutanedicarboxamide, 2-phenyl-N,N'-bis(1-phenylethyl)-	30.968

(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol	31.689
Glycine, N-[(3n5n12n-24-oxo-3,12-bis[(trimethylsilyl)oxy]cholan-24-yl)-, methyl ester	31.932
Phthalic acid, 6-ethyl-3-octyl butyl ester	32.222
7-Heptadecene, 17-chloro-	32.473
Benzene, (1-methyldodecyl)-	32.917
Pentadecanoic acid, 13-methyl-, methyl ester	33.347
Benzene, (1-propylheptadecyl)-	33.684
Benzene, (1-ethyloctyl)-	34.244
Phthalic acid, butyl hex-2-yn-4-yl ester	34.406
Benzene, (1-methyldecyl)-	35.159
Benzene, (1-methyldecyl)-	35.176
Hexadecanoic acid, octadecyl ester	35.346
17-Pentatriacontene	36.795
9-Octadecenoic acid (Z)-, 2-hydroxy-1-(hydroxymethyl)ethyl ester	37.048
9-Hexadecenoic acid, eicosyl ester, (Z)-	40.144
No Match	59.652
3,5,9-Trioxa-5-phosphaheptacos-18-en-1-a	59.72
Cholestano[7,8-a]cyclobutane, 3-methoxy-6-oxo-2'-methylene-	60.055
(22S)-21-Acetoxy-6n11ndihydroxy-16n17npropylmethylenedioxypregna-1,4-diene-3,20-dione	60.384
Cholestano[7,8-a]cyclobutane, 3-methoxy-6-oxo-2'-methylene-	60.463
(22S)-21-Acetoxy-6n11ndihydroxy-16n17npropylmethylenedioxypregna-1,4-diene-3,20-dione	60.667
No Match	60.7
	60.86
No Match	60.92
No Match	60.951
No Match	61.079
No Match	61.145
4,15-Diazacycloheptadecane-3,16-dione, 4,15-dihexyl-1-oxa	61.214
No Match	61.237
No Match	61.349
No Match	61.365
No Match	61.405
No Match	61.439
No Match	61.599
No Match	61.718
No Match	61.756
No Match	61.801
No Match	61.833
No Match	61.932
No Match	62.109
No Match	62.154
No Match	62.244
No Match	62.306
No Match	62.349
No Match	62.432
No Match	62.519
(1n2n3n4n4an5n8n8an-	62.548

Sample H

1,2-Benzenedicarboxylic acid, butyl 2-methylpropyl ester	32.207
.psi.,.psi.-Carotene, 1,1',2,2'-tetrahydro-1,1'-dimethoxy-	57.717
.psi.,.psi.-Carotene, 1,1',2,2'-tetrahydro-1,1'-bis[(trimethylsilyl)oxy]-	57.942
Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl)-	58.793
.psi.,.psi.-Carotene, 1,1',2,2'-tetrahydro-1,1'-bis[(trimethylsilyl)oxy]-	59.005
Rhodopin	59.218
Rhodopin	59.408
.psi.,.psi.-Carotene, 1,1',2,2'-tetrahydro-1,1'-bis[(trimethylsilyl)oxy]-	59.717
Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl)-	59.884

1,3-Dichloro-1,3-bis(norbornadien-2-yl)-1,3-bis(3-trimethylsilylpropyl)disiloxane	60.251
.psi.,psi.-Carotene, 1,1',2,2'-tetrahydro-1,1'-bis[(trimethylsilyl)oxy]-	60.595
Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl)-	61.403

UNUSED FIBER

Sample 3

3,5,9-Trioxa-5-phosphaheptacos-18-en-1-a	56.571
3,5,9-Trioxa-5-phosphaheptacos-18-en-1-a	56.655
3,5,9-Trioxa-5-phosphaheptacos-18-en-1-a	56.813

Sample 5

4-Hydroxymandelic acid, ethyl ester, di-TMS	14.654
Cyclododecane	23.307
(R)-(-)-(Z)-14-Methyl-8-hexadecen-1-ol	27.848
Hexadecane, 1,1-bis(dodecyloxy)-	28.741
No Match	56.385
No Match	56.44
No Match	56.476
No Match	56.519
Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl)-	56.55
No Match	56.612
No Match	56.645
Propanoic acid, 2-(3-acetoxy-4,4,14-trimethylandro-8-en-17-yl)-	56.725
No Match	56.861
No Match	56.911
No Match	57.02
No Match	57.059
No Match	57.131
No Match	57.167
No Match	57.223
3,5,9-Trioxa-5-phosphaheptacos-18-en-1-a	57.258
3,5,9-Trioxa-5-phosphaheptacos-18-en-1-a	57.303
No Match	57.339
No Match	57.373
No Match	57.414
No Match	57.43
No Match	57.468
No Match	57.515
No Match	57.595
No Match	57.636
No Match	57.672
No Match	57.725
No Match	57.762
No Match	57.8
No Match	57.818
No Match	57.848
No Match	57.914
No Match	57.948
No Match	57.971
No Match	58.002
No Match	58.037
No Match	58.12
No Match	58.158
No Match	58.183
No Match	58.218
No Match	58.249
No Match	58.289
No Match	58.332
No Match	58.376

No Match	58.465
No Match	58.49
No Match	58.535
No Match	58.582
No Match	58.621
No Match	58.655
No Match	58.684
No Match	58.711
No Match	58.76
No Match	58.81
No Match	58.855
No Match	58.886
No Match	58.905
No Match	58.924
No Match	58.998
No Match	59.022
No Match	59.062
No Match	59.1
No Match	59.135
No Match	59.152
No Match	59.192
No Match	59.207
No Match	59.235
No Match	59.281
No Match	59.318
No Match	59.357
No Match	59.371
No Match	59.407
No Match	59.44
No Match	59.486
No Match	59.521
No Match	59.557
No Match	59.603
No Match	59.631
No Match	59.659
No Match	59.718
No Match	59.744
No Match	59.767
No Match	59.819
No Match	59.877
No Match	59.905
No Match	59.937
No Match	59.978
No Match	60.002
No Match	60.036
No Match	60.069
No Match	60.101
No Match	60.145
No Match	60.193
No Match	60.236
No Match	60.27
No Match	60.292
No Match	60.324
No Match	60.377
No Match	60.412
No Match	60.43
No Match	60.454
No Match	60.484

No Match	60.513
No Match	60.539
No Match	60.589
No Match	60.605
No Match	60.635
No Match	60.65
No Match	60.675
No Match	60.711
No Match	60.742
No Match	60.764
No Match	60.809
No Match	60.841
No Match	60.894
No Match	60.932
No Match	60.976
No Match	61.012
No Match	61.028
No Match	61.067
No Match	61.121
No Match	61.151
No Match	61.196
No Match	61.24
No Match	61.294
No Match	61.335
No Match	61.352
No Match	61.374
No Match	61.4
No Match	61.452
No Match	61.506
No Match	61.534
No Match	61.575
No Match	61.663
No Match	61.705
No Match	61.731
No Match	61.757
No Match	61.783
No Match	61.813
No Match	61.856
No Match	61.895
No Match	61.946
No Match	61.99
No Match	62.033
No Match	62.071
No Match	62.162
No Match	62.246
No Match	62.292
No Match	62.309
No Match	62.361
No Match	62.474
No Match	62.527
No Match	62.575
No Match	62.612
No Match	62.656
No Match	62.706
No Match	62.748
No Match	62.801
No Match	62.839
No Match	62.93

No Match	62.963
Sample 8	
1,2-Benzisothiazole	18.206
3-(2-t-Butoxyethyl)decahydroisoquinoline	21.877
Benzenethiol, 4-(1,1-dimethylethyl)-2-methyl-	22.832
FIELD INFILL	
Sample AA	
Gibberellic acid	0.025
Gibberellic acid	0.055
.beta.-Hydroxyquebrachamine	0.074
dl-Alanyl-l-alanine	0.643
Pseudosolasodine diacetate	0.668
7,10,13-Eicosatrienoic acid, methyl ester	0.7
N,N'-Bis(Carbobenzyloxy)-lysine methyl(ester)	0.731
Glucobrassicin	0.755
Curan-17-oic acid, 2,16-didehydro-19-hydroxy-, methyl ester, (20.xi.)-	0.808
Lupulon	0.837
Oxirane, tetramethyl-	0.913
2-Myristynoyl pantetheine	0.955
7-Chloro-1-[[3-[dimethylamino]propyl]imino]-1,3,4,10-tetrahydro-10-hydroxy-3-(pyridin-4-yl)-9(2H)-acridinone	1.02
Butanenitrile, 2,3-dioxo-, dioxime, o,o'-diacetyl-	1.094
No Match	1.186
Cyclohexanol, 2-[(dimethylamino)methyl]-1-(3-methoxyphenyl)-	1.279
1,3-Butanediol, diacetate	1.52
1-Propanol, 2,2-dimethyl-, acetate	1.757
Hexane, 1-fluoro-	1.83
Hydrazinecarboxylic acid, phenylmethyl ester	1.914
Propyl nitrite	2.262
1-Methyl-2-phenylbenzimidazole	2.397
2,4,6-Cycloheptatrien-1-one, 3,5-bis-trimethylsilyl-	2.555
2,4-Di-tert-butylthiophenol	2.641
Z-10-Pentadecen-1-ol	2.898
Propanoic acid, 2-methyl-, pentyl ester	3.138
Hexadecane, 1,1-bis(dodecyloxy)-	3.865
Oxime-, methoxy-phenyl-_	5.408
4-Ethylbenzoic acid, decyl ester	5.503
2,5-Dimethylhexane-2,5-dihydroperoxide	5.674
Oxime-, methoxy-phenyl-_	5.854
4-Ethylbenzoic acid, pentadecyl ester	6.042
Oxime-, methoxy-phenyl-_	6.07
Oxime-, methoxy-phenyl-_	6.199
1-Propyl-3,6-diazahomoadamantan-9-ol	6.397
5-(4,5-Dihydro-3H-pyrrol-2-ylmethylene)-4,4-dimethylpyrrolidin-2-one	6.41
3,4-Dihydroisoquinolin-7-ol, 1-[4-hydroxybenzyl]-6-methoxy-	7.36
sec-Butyl nitrite	7.543
Pyrrolidine, 1-(1-oxo-2,5-octadecadienyl)-	7.557
Cyclohexane, 1,3,5-trimethyl-2-octadecyl-	7.975
9-Octadecene, 1,1'-[1,2-ethanediylbis(oxy)]bis-, (Z,Z)-	9.482
3-Aza-2-(4-chlorophenyl)-1,1-dicyano-3-(1-methylpyrrolidin-2-yliden)propene	9.649
Pyrazole[4,5-b]imidazole, 1-formyl-3-ethyl-6-πd-ribofuranosyl-	9.706
3,4-Hexanediol, 2,5-dimethyl-	10.27
Pregna-5,8-diene-3π11πdiol-20-one diacetate	10.964
1,2-Epoxyundecane	11.233
Borinic acid, diethyl-, 1-cyclododecen-1-yl ester	11.26
No Match	11.429
Cyclohexanebutanal, 2-methyl-3-oxo-, cis	11.593
Cyclohexane, 1,1'-dodecylidenebis[4-methyl-	11.761

2,4,6-Cycloheptatrien-1-one, 3,5-bis-trimethylsilyl-	12.199
Cyclohexane, 1,1'-(2-tridecyl-1,3-propanediyl)bis-	12.232
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide	12.543
Allopregnane-7 π 11 π diol-3,20-dione	12.66
m-Toluic acid, 3,5-difluorophenyl ester	12.795
p-Trimethylsilyloxyphenyl-bis(trimethylsilyloxy)ethane	13.061
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.249
Androst-4-ene-3,20-dione, 11,16,22-triacetoxy-	13.271
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide	13.382
No Match	13.414
No Match	13.441
No Match	13.463
4-tert-Butylcyclohexyl propylphosphonofluoridate	13.531
No Match	14.036
No Match	14.122
No Match	14.265
8,14-Seco-3,19-epoxyandrostane-8,14-dione, 17-acetoxy-3 π methoxy-4,4-dimethyl-	14.401
No Match	14.633
No Match	14.705
No Match	14.748
1,2-15,16-Diepoxyhexadecane	15.275
1,2-trans-1,5-trans-2,5-dihydroxy-4-methyl-1-(1-hydroxy-1-isopropyl)cyclohex-3-ene	15.436
No Match	15.505
No Match	15.587
No Match	15.749
No Match	15.935
9-Octadecene, 1,1'-[1,2-ethanediylbis(oxy)]bis-, (Z,Z)-	15.962
No Match	16.087
No Match	16.281
No Match	16.307
No Match	16.368
No Match	16.462
No Match	16.561
4-Aminoresorcinol	17.107
No Match	18.25
No Match	18.788
1,3-Dioxane, 4-(hexadecyloxy)-2-pentadecyl-	19.168
No Match	19.352
1,3-Dioxane, 5-(hexadecyloxy)-2-pentadecyl-, cis-	19.422
1(3H)-Isobenzofuranone, 6-(dimethylamino)-3,3-bis[4-(dimethylamino)phenyl]-	19.725
No Match	20.311
Pyrrrole-2-carbonitrile, 5-formyl-3,4-dimethyl-	21.23
2-[1-(4-Methoxy-phenyl)-1H-tetrazol-5-ylsulfanylmethyl]-1H-benzoimidazole	21.256
No Match	21.343
No Match	21.45
No Match	21.798
No Match	21.921
No Match	21.957
Bis(pentamethylcyclotrisiloxy)tetramethyldisiloxane	21.982
No Match	25.22
No Match	25.291
Butanamide, N-methyl-4-(methylthio)-2-(2,2-dimethylpropylidene)amino-	25.596
No Match	30.225
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione	31.06
.psi.,.psi.-Carotene, 1,1',2,2'-tetrahydro-1,1'-bis[(trimethylsilyl)oxy]-	31.198
No Match	45.489
1H-Indole-2-carboxylic acid, 6-(4-ethoxyphenyl)-3-methyl-4-oxo-4,5,6,7-tetrahydro-, isopropyl ester	46.555
No Match	46.592

No Match	48.934
Tetracosamethyl-cyclododecasiloxane	49.339
No Match	50.033
No Match	51.677

Sample BB

Rhodoviolacin	0.022
Benzeneethanamine, trimethyl-3-[4-methylphenoxy]-	0.639
Androst-5,7-dien-3-ol-17-one, acetate	0.669
Glucobrassicin	0.755
Crinan-6,11-diol, 1,2-didehydro-3-methoxy-, (3π5π6π11R,13π19π-	0.84
Silacyclopentane	0.915
Crinan-6,11-diol, 1,2-didehydro-3-methoxy-, (3π5π6π11R,13π19π-	1.022
Oxirane, tetramethyl-	1.097
1,3-Butanediol, diacetate	1.526
No Match	1.608
No Match	1.654
No Match	1.725
Propanoic acid, butyl ester	1.763
Butanoic acid, 2-[(phenylmethoxy)imino]-, trimethylsilyl ester	1.967
No Match	2.048
No Match	2.126
S-(2-Formylisopropyl)thioacetate	2.268
2,4,6-Cycloheptatrien-1-one, 3,5-bis-trimethylsilyl-	2.641
2,4,6-Cycloheptatrien-1-one, 3,5-bis-trimethylsilyl-	2.669
No Match	2.997
Isovaline, 3-hydroxy-	3.143
9-Octadecenoic acid (Z)-, hexyl ester	3.873
2H-Benzo[f]oxireno[2,3-E]benzofuran-8(9H)-one, 9-[[[(1,3-benzodioxol-5-ylmethyl)amino]methyl]octahydro-2,5a-dimethyl-	4.021
Carbamic acid, (cyanomethyl)-, 1,1-dimethylethyl ester	4.102
Propane-1,1,2,2-tetracarbonitrile, 3-(4-acetyl-2,5-dimethyl-3-furanoyl)-	5.077
6,7-Epoxy pregn-4-ene-9,11,18-triol-3,20-dione, 11,18-diacetate	5.398
3-(3-Carboxy-4-hydroxyphenyl)-D-alanine	5.453
No Match	5.484
6,7-Epoxy pregn-4-ene-9,11,18-triol-3,20-dione, 11,18-diacetate	5.553
6,7-Epoxy pregn-4-ene-9,11,18-triol-3,20-dione, 11,18-diacetate	5.583
2,5-Dimethylhexane-2,5-dihydroperoxide	5.68
N-2,4-Dnp-L-arginine	5.87
No Match	6.41
Phosphorothioic acid, O-(4,5-dichloro-2-methoxyphenyl) O,O-dimethyl ester	7.172
Toluene, 2-(4-dimethylaminobenzylidenamino)-4-nitro-	7.372
sec-Butyl nitrite	7.551
No Match	7.817
Cyclohexane, 1,3,5-trimethyl-2-octadecyl-	7.973
Octadecanoic acid, (2-phenyl-1,3-dioxolan-4-yl)methyl ester, cis-	8.51
No Match	8.577
Octane, 1-ethoxy-	9.134
Pyrrolidine, 1-(1-oxo-2,5-octadecadienyl)-	9.487
Pseudosolasodine diacetate	9.674
Pregan-20-one, 2-hydroxy-5,6-epoxy-15-methyl-	9.745
Butyl aldoxime, 2-methyl-, syn-	10.264
N-[3-[N-Aziridyl]propylidene]tetrahydrofurfurylamine	11.244
3-Trifluoroacetoxypentadecane	11.274
8-Dodecen-1-ol, acetate, (Z)-	11.301
Hexadecane, 1,1-bis(dodecyloxy)-	11.429
3-(2-Hydroxy-2-methyl-propyl)-cyclohex-2-enone	12.211
m-Toluic acid, 3,5-difluorophenyl ester	12.813
p-Trimethylsilyloxybenzaldehyde oxime, trimethylsilyl-	13.066

Chrysanthemumic acid 2,4-dimethylbenzyl ester	13.256
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.384
4-Oxo-4-(para-tolyl)-butyric acid	13.403
Androst-4-ene-3,20-dione, 11,16,22-triacetoxy-	13.421
No Match	13.508
Octanoic acid, tridec-2-ynyl ester	13.54
Octadecanoic acid, 1-[(tetradecyloxy)carbonyl]pentadecyl ester	13.599
No Match	13.647
Invalid RT Spectrum	14.984
No Match	15.002
2H-Pyran, tetrahydro-2-(12-pentadecynyloxy)-	15.287
Cyclopentadecanone, 4-methyl-	15.438
2-Octanol, 2,6-dimethyl-	16.226
No Match	16.531
2H-1,4-Benzodiazepin-2-one, 7-chloro-1,3	16.561
2H-1,4-Benzodiazepin-2-one, 7-chloro-1,3	16.612
3-Picoline, 2-(tert-butylthio)-	17.105
Thiophene, 2-(1,1-dimethylethyl)-	18.786
Spiro[4.5]decan-7-one, 1,8-dimethyl-8,9-epoxy-4-isopropyl-	19.416
Pyrrole-2-carbonitrile, 5-formyl-3,4-dimethyl-	21.17
Benzenethiol, 4-(1,1-dimethylethyl)-2-methyl-	21.261
Bis(pentamethylcyclotrisiloxy)tetramethyldisiloxane	21.987
Phenol, 2,4-bis(1,1-dimethylethyl)-	22.195
Butanamide, N-methyl-4-(methylthio)-2-(2,2-dimethylpropylidene)amino-	25.589
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione	31.062
Rhodopin	31.171
2,2-Bis-(4-hydroxyphenyl)-butane	36.96
2,2-Bis-(4-hydroxyphenyl)-butane	36.989
No Match	37.115
1,3,5-Triazine-2,4(1H,3H)-dione, 6-(2-methylphenylamino)-	37.132
(1,3-Dioxindan-2-yl)acetic acid, methyl ester	37.146
Eseroline, 4'-methylphenylcarbamate(ester)	37.17
3-Amino-4-methyl-6,7-dimethoxyquinoline	37.214
3-Amino-4-methyl-6,7-dimethoxyquinoline	37.245
No Match	37.342
No Match	44.387
No Match	45.512
No Match	45.87
No Match	47.986
Tetracosamethyl-cyclododecasiloxane	48.072
No Match	48.264
No Match	48.57
No Match	49.912
No Match	50.587
No Match	50.693
No Match	50.95
No Match	51.661
No Match	51.689
No Match	51.715
No Match	51.797
No Match	52.027
No Match	52.065
No Match	52.097
No Match	52.155
No Match	52.571
No Match	52.729
No Match	52.935
No Match	53.869

Sample CC

1H-2,8a-methanocyclopenta[a]cyclopropa	0.02
Chlordiazepoxide	0.138
(S)-(+)-1-Cyclohexylethylamine	0.642
7-Chloro-1-[[3-[dimethylamino]propyl]imino]-1,3,4,10-tetrahydro-10-hydroxy-3-(pyridin-4-yl)-9(2H)-acridinone	0.811
Oxirane, tetramethyl-	0.915
Acetic acid, 1-methylethyl ester	1.098
Morpholine, 4-methyl-, 4-oxide	1.523
Hydrazinecarboxylic acid, phenylmethyl ester	1.915
Propyl nitrite	2.265
2,4,6-Cycloheptatrien-1-one, 3,5-bis-trimethylsilyl-	2.453
Z-10-Pentadecen-1-ol	2.902
Propanoic acid, 2-methyl-, pentyl ester	3.137
2-Dodecanone	6.374
2-Dodecanone	6.389
E-3-Pentadecen-2-ol	6.425
5-(4,5-Dihydro-3H-pyrrol-2-ylmethylene)-4,4-dimethylpyrrolidin-2-one	6.49
Octadec-9-enoic acid	7.97
Erucic acid	7.994
1,2-Dibutoxyethane	8.245
Hexadecane, 1,1-bis(dodecyloxy)-	8.566
Cyclopentadecanone, 4-methyl-	11.235
4-Chloro-3-n-hexyltetrahydropyran	11.59
2-Furancarboxylic acid, heptadecyl ester	12.013
Benzeneacetic acid, π4-bis(trimethylsilyloxy)-, methyl ester	13.061
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.224
Chrysanthemumic acid 2,4-dimethylbenzyl ester	13.259
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.468
3-Methylcyclopentadecylcarbamic acid, t-butyl ester	13.522
.gamma. Dodecalactone	14.634
2-Hydroxy-1,1,10-trimethyl-6,9-epidioxy-7-octalin	15.269
1-Methoxy-3-hydroxymethyloctane	15.431
Cyclopentadecanone, 4-methyl-	15.442
No Match	15.771
No Match	15.952
Cyclooctanemethanol, πππdimethyl-	16.226
Methyl 15-methoxyhexadecanoate	16.251
No Match	16.513
No Match	16.532
3-Picoline, 2-(tert-butylthio)-	18.787
Naphthalene, decahydro-1,4a-dimethyl-7-(1-methylethyl)-, [1S-(1π4aπ7π8aπ)-	19.411
No Match	19.529
No Match	19.922
No Match	20.393
No Match	20.455
Pyrrole-3-carbonitrile, 5-formyl-2,4-dimethyl-	20.897
Pyrrole-3-carbonitrile, 5-formyl-2,4-dimethyl-	21.168
Pyrrole-3-carbonitrile, 5-formyl-2,4-dimethyl-	21.217
No Match	21.257
No Match	21.398
No Match	21.442
Bis(pentamethylcyclotrisiloxy)tetramethyldisiloxane	21.973
3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-13-formyl-4,8,8-trimethyl-20-oxo, methyl ester	21.995
Phenol, 2,4-bis(1,1-dimethylethyl)-	22.192
9-Hexadecenoic acid, 9-hexadecenyl ester, (Z,Z)-	22.525
1,1':3',1''-Terphenyl, 4,4''-dimethyl-5'-(4-methylphenyl)-	25.741

1-(4-Hydroxy-3,5-di-tert.-butylphenyl)-2-methyl-3-morpholinopropan-1-one	30.216
1-(4-Hydroxy-3,5-di-tert.-butylphenyl)-2-methyl-3-morpholinopropan-1-one	30.257
Ethanone, 1-(5,6,7,8-tetrahydro-2,8,8-trimethyl-4H-cyclohepta[b]furan-5-yl)-	30.398
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione	31.064
Canthaxanthin	31.17
Didodecyl phthalate	42.377
No Match	42.785
No Match	49.472
No Match	50.11
No Match	50.561
No Match	50.678
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	51.137
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	51.528
No Match	51.665
No Match	51.698
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	51.858
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	51.887
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	51.907
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	51.96
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	51.989
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.041
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.062
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.088
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.134
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.167
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.23
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.303
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.378
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.43
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.476
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.522
No Match	52.58
No Match	52.637
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.697
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	52.831
No Match	52.883
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.005
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.092
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.11
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.191
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.257
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.273
No Match	53.297
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.428
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.445
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.554
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.61
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.628
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	53.8
2,4-Imidazolidinedione, 5-[3,4-bis((trimethylsilyl)oxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	54.085
1-Monolinoleoylglycerol trimethylsilyl ether	54.241

Sample DD

2,5-Dimethoxy-4-(methylsulfonyl)amphetamine	0.64
N,N'-Bis(Carbobenzyloxy)-lysine methyl(ester)	0.667
N,N'-Bis(Carbobenzyloxy)-lysine methyl(ester)	0.705
N,N'-Bis(Carbobenzyloxy)-lysine methyl(ester)	0.733
Glucobrassicin	0.754

9-Octadecenoic acid, 2-phenyl-1,3-dioxan-5-yl ester	0.807
Molybdenum, di- π -chlorobis[(1,2,3,4,5,6- π -methylbenzene)bis(π -2-propenyl)di-	0.837
Oxirane, tetramethyl-	0.913
No Match	1.015
Isoxazolidine, 4-ethyl-2,5-dimethyl-, trans-	1.095
No Match	1.283
No Match	1.367
No Match	1.403
Butanenitrile, 2,3-dioxo-, dioxime, o,o'-diacetyl-	1.451
2H-Pyran, 3,4-dihydro-4-hydroxy-	1.523
Propanoic acid, propyl ester	1.764
Benzeneacetic acid, hexyl ester	1.905
Propane, 1-chloro-2-methyl-	2.035
Pentane, 2-chloro-	2.267
2-Chloroaniline-5-sulfonic acid	2.337
1-Methyl-2-phenylbenzimidazole	2.389
2,4,6-Cycloheptatrien-1-one, 3,5-bis-trimethylsilyl-	2.458
2-Propen-1-one, 1,3-diphenyl-	2.523
2-(Acetoxymethyl)-3-(methoxycarbonyl)biphenylene	2.546
Pyridine, 1,2,3,6-tetrahydro-1-methyl-4-[4,5-dihydroxyphenyl]-	2.616
No Match	2.702
Z-1,9-Hexadecadiene	2.899
Propanoic acid, 2-methyl-, pentyl ester	3.14
Oxirane, 2,3-diethyl-	6.252
Hexane, 3-methyl-	7.547
No Match	8.576
Butyl aldoxime, 2-methyl-, syn-	10.247
Cyclopentadecanone, 4-methyl-	11.235
Cyclopentadecanone, 4-methyl-	11.281
9-Hexadecenoic acid	11.398
No Match	11.441
Furan, tetrahydro-2,5-dipropyl-	12.007
3-(2-Hydroxy-2-methyl-propyl)-cyclohex-2-enone	12.207
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide	12.457
p-Trimethylsilyloxyphenyl-bis(trimethylsilyloxy)ethane	13.053
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.233
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.26
1,2,4-Oxadiazole, 5-(4-nitrophenyl)-3-phenyl-	13.3
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.34
4-Oxo-4-(para-tolyl)-butyric acid	13.375
2-Oxazolamine, 4,5-dihydro-5-(phenoxyethyl)-	13.399
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.414
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide	13.432
3-Methylcyclopentadecylcarbamic acid, t-butyl ester	13.525
Ethanol, 2-[2-[2-[4-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethoxy]-	13.563
Androst-4-ene-3,20-dione, 11,16,22-triacetoxy-	13.606
Cyclohexane, 1,3,5-trimethyl-2-octadecyl-	14.711
Cholestan-3-one, cyclic 1,2-ethanediyl acetal, (5 π -	14.737
2H-Pyran, tetrahydro-2-(12-pentadecynyloxy)-	15.264
1,2-trans-1,5-trans-2,5-dihydroxy-4-methyl-1-(1-hydroxy-1-isopropyl)cyclohex-3-ene	15.278
1,2-trans-1,5-trans-2,5-dihydroxy-4-methyl-1-(1-hydroxy-1-isopropyl)cyclohex-3-ene	15.441
No Match	15.592
Methyl 16-methoxyheptadecanoate	16.073
No Match	16.53
No Match	16.871
No Match	16.975
No Match	17.295
No Match	17.946

Phosphonic acid, (1-methylethyl)-, bis[5-methyl-2-(1-methylethyl)cyclohexyl] ester	18.785
Naphthalene, 1,1'-(1,10-decanediyl)bis[decahydro-	19.412
No Match	20.446
No Match	20.579
2,7-Octanedione, 4,4-dimethyl-3-[2-(1-hydroxy-1-methylethyl)-3-methyl-3-butenylidene]-	21.264
4-Formyl-3,5-dimethyl-1H-pyrrole-2-carbonitrile	21.355
(6-Hydroxymethyl-2,3-dimethylphenyl)methanol	21.427
Longifolenaldehyde	21.589
No Match	21.891
No Match	21.979
Phenol, 2,4-bis(1,1-dimethylethyl)-	22.189
2H-Benzocyclohepten-2-one, decahydro-9a-methyl-, trans-	22.553
No Match	24.287
Butanamide, N-methyl-4-(methylthio)-2-(2,2-dimethylpropylidene)amino-	25.587
No Match	27.898
No Match	28.083
No Match	28.154
No Match	28.901
1-(4-Hydroxy-3,5-di-tert.-butylphenyl)-2-methyl-3-morpholinopropan-1-one	30.218
No Match	30.396
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione	31.053
No Match	31.173
No Match	32.101
No Match	32.397
No Match	35.676
No Match	36.461
No Match	36.906
No Match	36.938
No Match	37
No Match	37.042
No Match	37.198
No Match	37.23
No Match	37.358
No Match	37.533
No Match	37.671
No Match	37.899
No Match	37.961
No Match	38.076
No Match	38.152
No Match	38.299
No Match	38.44
No Match	38.506
No Match	38.641
No Match	38.788
No Match	42.379
Prosta-5,13-dien-1-oic acid, 9,11,15-tris[(trimethylsilyloxy)-], methyl ester	44.388
No Match	45.877
No Match	47.45
No Match	48.307
No Match	48.461
5-Ethyl-8-(trimethylsilylmethyl)dimethylsilyloxydecane	49.903
No Match	50.715
No Match	50.861
No Match	51.613
No Match	51.644
No Match	51.677
No Match	51.727
No Match	51.773

No Match	51.818
No Match	51.862
No Match	52.035
No Match	52.588
No Match	52.618
No Match	52.642
No Match	52.67
No Match	52.733
No Match	52.795
No Match	52.844
No Match	52.915
No Match	52.921
No Match	53.024
No Match	53.802
No Match	53.881
No Match	54.005
No Match	54.083
No Match	54.118
No Match	54.252
No Match	54.362
No Match	54.399
No Match	54.447
No Match	54.479
No Match	54.577
No Match	54.595
No Match	54.646
No Match	54.76
No Match	54.794
No Match	54.876
No Match	54.908
No Match	55.044
No Match	55.094
No Match	55.573
No Match	64.778

Sample EE

17Alpha-ethynyl-6beta-methoxy-3alpha,5-c (2-Aziridinylethyl)amine	0.025
N,N'-Bis(Carbobenzyloxy)-lysine methyl(ester)	0.642
8,11,14-Eicosatrienoic acid, methyl ester	0.667
Glucobrassicin	0.724
Chloromethanesulfonyl chloride	0.752
Gibberellic acid	0.774
Cyclobutylamine	0.886
Acetic acid, 1-methylethyl ester	1.017
3-Acetoxy-2-trifluoromethylbut-3-enoic acid,ethyl ester	1.099
Cyclobutylamine	1.157
Cyclobutylamine	1.218
Guanidine	1.242
Isobutane	1.284
4-Heptanol, 3-ethyl-	1.329
Butane, 2-chloro-2,3-dimethyl-	1.526
Benzyloxymethylimine	1.712
Butanoic acid, 3-methyl-2-[(phenylmethoxy)imino]-, trimethylsilyl ester	1.921
1-Propanamine, N,2-dimethyl-N-nitro-	2.034
2,4,6-Cycloheptatrien-1-one, 3,5-bis-trimethylsilyl-	2.266
2,4,6-Cycloheptatrien-1-one, 3,5-bis-trimethylsilyl-	2.451
3-Octene, (Z)-	2.493
	2.899

Butanoic acid, pentyl ester	3.135
No Match	3.87
No Match	4.009
No Match	4.102
Dihydroxanthin	5.811
Oxirane, 2,3-diethyl-	6.374
2-Cyclohexene-1-carboxylic acid, 1,3-dimethyl-2-(3-methyl-7-oxo-1,3-octadienyl)-4-oxo-, methyl ester, (+)-	6.497
No Match	7.973
1,2-Dibutoxyethane	8.242
Hexadecane, 1,1-bis(dodecyloxy)-	8.409
No Match	8.486
Octadecanedioic acid	8.513
Cholestan-3-one, cyclic 1,2-ethanediyl acetal, (5 π -	8.557
Serverogenin acetate	9.654
14-Oxonadec-10-enoic acid, methyl ester	9.856
Cyclopentadecanone, 4-methyl-	11.239
1-Docosanol	11.271
9-Octadecenoic acid (Z)-, hexyl ester	11.384
4-Chloro-3-n-hexyltetrahydropyran	11.586
Cyclohexane, [6-cyclopentyl-3-(3-cyclopentylpropyl)hexyl]-	11.697
2-Furancarboxylic acid, propyl ester	12.011
No Match	12.2
Octadecanoic acid, 1-[(tetradecyloxy)carbonyl]pentadecyl ester	12.364
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide	12.457
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide	12.494
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide	12.516
o-Toluic acid, 3,5-difluorophenyl ester	12.804
p-Trimethylsilyloxyphenyl-bis(trimethylsilyloxy)ethane	13.052
Chrysanthemumic acid 2,4-dimethylbenzyl ester	13.242
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.261
m-Toluic acid, 2-bromo-4-fluorophenyl ester	13.328
1,2,4-Oxadiazole, 5-(4-nitrophenyl)-3-phenyl-	13.356
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.376
1,2,4-Oxadiazole, 5-(4-nitrophenyl)-3-phenyl-	13.401
4,4,8,10,14-Pentamethyl-17-(perhydro-2,6,6-trimethyl-2H-pyran-2-yl)-5 α -gonane-3 β ,12 β -diol	13.517
Cholestan-22(26)-isoepoxy-3,16-dione	13.547
No Match	13.599
No Match	13.632
tetrakis(acetyloxy)decahydro-3,6,8,8,10a-pentamethyl-	14.106
3,19;14,15-Diepoxypregnan-20-one, 3,11,18-triacetoxy-	14.132
Pseudosolasodine diacetate	14.165
No Match	14.724
No Match	15.01
1,2-15,16-Diepoxyhexadecane	15.271
Cyclopentadecanone	15.429
2-Cyclohexylpiperidine	15.446
No Match	15.91
No Match	16.083
o-Menthan-8-ol	16.224
No Match	16.509
No Match	16.538
Thiophene, 2,5-diethyl-	18.783
No Match	20.311
No Match	20.428
No Match	20.454
Pyridine, 4-(1-pyrrolidinyl)-	20.883
2-Methyl-5-hydroxybenzofuran	21.065
Benzenethiol, 4-(1,1-dimethylethyl)-2-methyl-	21.257

4-Formyl-3,5-dimethyl-1H-pyrrole-2-carbonitrile	21.357
Phenol, 2,4-bis(1,1-dimethylethyl)-	22.19
Butanamide, N-methyl-4-(methylthio)-2-(2,2-dimethylpropylidene)amino-	25.588
No Match	28.169
1-(4-Hydroxy-3,5-di-tert.-butylphenyl)-2-methyl-3-morpholinopropan-1-one	30.216
2,5-di-tert-Butyl-1,4-benzoquinone	30.398
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione	31.061
No Match	42.374
No Match	42.392
No Match	44.387
No Match	44.403
No Match	48.538
No Match	49.398
No Match	49.942
No Match	50.025
No Match	50.096
No Match	50.56
No Match	50.611
No Match	51.631
No Match	51.73
No Match	52.525
No Match	52.595
No Match	52.622
No Match	52.663
No Match	52.807
No Match	52.948

Sample FF

No Match	0.046
8,11,14-Eicosatrienoic acid, methyl ester	0.645
Dasycarpidan-1-methanol, acetate (ester)	0.668
No Match	0.751
Oxirane, (1-methylbutyl)-	0.839
Pentane, 1-propoxy-	1.022
Oxirane, tetramethyl-	1.284
2-Heptanethiol, 2-methyl-	1.762
Toluene	1.924
Butanoic acid, pentyl ester	3.152
Hexadecane, 1,1-bis(dodecyloxy)-	3.864
Benzene, 1-benzyloxy-5-diethylamino-2,4-dinitro-	3.914
3-Phenyl-propionic acid (2-hydroxy-5-nitro-benzylidene)-hydrazide	3.947
Pseudosolasodine diacetate	4.016
No Match	4.099
13-Docosenoic acid, methyl ester	5.671
1-iso-Propyl-3,6-diazahomoadamantan-9-one	6.379
1-Hexadecanesulfonic acid, 3,5-dichloro-2,6-dimethyl-4-pyridyl ester	6.403
No Match	6.506
Palmitic acid, 2-(1-octadecenyloxy)ethyl ester, (E)-	7.372
Octane, 4-methyl-	7.549
9-Hexadecenoic acid	7.97
Cyclohexane, 1,1'-dodecylidenebis[4-methyl-	8.007
Carbamic acid, (cyanomethyl)-, 1,1-dimethylethyl ester	8.237
Cholestan-3-one, 4,4-dimethyl-, cyclic 1,2-ethanediyl acetal, (5π-	8.55
5-(p-Aminophenyl)-4-(p-tolyl)-2-thiazolamine	8.659
Tetracyclo[11.4.0.0(1,10).0(5,9)]heptadec-12-ene-2π6-diol-15-one, 5-methyl ethylene diacetal	8.812
4,5-Dimethyl-3-heptanol	9.114
No Match	9.477
No Match	9.497

3-Methoxy-3-methylbutanol	10.251
Tetracyclo[11.4.0.0(1,10).0(5,9)]heptadec-12-ene-2π6-diol-15-one, 5-methyl ethylene diacetal	10.44
2-Myristinoyl pantetheine	10.837
1,2-Epoxyundecane	11.226
Cyclopentadecanone, 4-methyl-	11.255
Hexadecane, 1,1-bis(dodecyloxy)-	11.363
Hexadecane, 1,1-bis(dodecyloxy)-	11.398
N-[3-[N-Aziridyl]propylidene]tetrahydrofurfurylamine	11.43
4-Chloro-3-n-hexyltetrahydropyran	11.581
3-Hydroxy-4,4-dimethyl-3-(1-methyl-3-oxobut-1-enyl)cycloheptanone	12.031
Digitoxin	12.05
No Match	12.604
o-Toluic acid, 3,5-difluorophenyl ester	12.795
m-Toluic acid, 3,5-difluorophenyl ester	12.957
No Match	13.233
No Match	13.258
No Match	13.278
No Match	13.321
No Match	13.351
No Match	13.397
No Match	13.418
No Match	13.454
4,4,8,10,14-Pentamethyl-17-(perhydro-2,6,6-trimethyl-2H-pyran-2-yl)-5α-gonane-3β,12β-diol	13.5
Cyclohexyl propylphosphonofluoridate	13.53
Tetracyclo[11.4.0.0(1,10).0(5,9)]heptadec-12-ene-2π6-diol-15-one, 5-methyl ethylene diacetal	13.767
Cholestan-3-one, 4,4-dimethyl-, cyclic 1,2-ethanediyl acetal, (5π-	13.796
No Match	13.874
No Match	14.267
No Match	14.366
Lactic acid, 2-methyl-, monoanhydride with 1-butaneboronic acid, cyclic ester	14.629
9-Octadecenoic acid (Z)-, hexyl ester	14.655
Cyclohexane, 1,3,5-trimethyl-2-octadecyl-	14.708
4,4-Ethylenedioxy-1-pentylamine	14.92
4,4-Ethylenedioxy-1-pentylamine	14.973
No Match	15.013
1,2-15,16-Diepoxyhexadecane	15.262
1,2-trans-1,5-trans-2,5-dihydroxy-4-methyl-1-(1-hydroxy-1-isopropyl)cyclohex-3-ene	15.427
No Match	15.531
No Match	15.59
No Match	15.781
Borinic acid, diethyl-, 2-acetylphenyl ester	16.722
No Match	17.198
No Match	17.277
Propylphosphonic acid, di(2-methylpropyl) ester	18.775
Naphthalene, 1,1'-(1,10-decanediyl)bis[decahydro-	19.409
Pyrrole-2-carbonitrile, 5-formyl-3,4-dimethyl-	21.148
2,7-Octanedione, 4,4-dimethyl-3-[2-(1-hydroxy-1-methylethyl)-3-methyl-3-butenylidene]-	21.259
(6-Hydroxymethyl-2,3-dimethylphenyl)methanol	21.375
(6-Hydroxymethyl-2,3-dimethylphenyl)methanol	21.397
6,7-Epoxypregn-4-ene-9,11,18-triol-3,20-dione, 11,18-diacetate	21.413
No Match	21.768
3-Methyl-6,7-benzoisoquinoline	21.891
No Match	21.966
No Match	22.542
Butanamide, N-methyl-4-(methylthio)-2-(2,2-dimethylpropylidene)amino-	25.586
Phenol, 2,4-di-t-butyl-6-nitro-	25.922
No Match	29.029
dioxo-	30.207

7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione	31.057
No Match	31.187
Tetracosamethyl-cyclododecasiloxane	41.794
Tetracosamethyl-cyclododecasiloxane	43.54
No Match	44.387
Tetracosamethyl-cyclododecasiloxane	46.665
Tetracosamethyl-cyclododecasiloxane	49.359
3-Dimethyl(trimethylsilylmethyl)silyloxy pentadecane	49.906
No Match	50.562
No Match	50.973
No Match	51.073
No Match	51.152
No Match	51.552
No Match	51.617
No Match	51.669
No Match	51.706
No Match	51.776
No Match	51.842
No Match	52.594
No Match	52.617
No Match	52.677
No Match	52.819
No Match	52.844
No Match	52.912
No Match	52.951
No Match	52.989
No Match	53.082
No Match	53.162
No Match	53.216
No Match	53.324
No Match	53.363
No Match	53.522
No Match	53.576
No Match	53.62
No Match	53.674
No Match	53.698
No Match	53.75
No Match	53.79
No Match	53.888
No Match	53.909
No Match	53.968
No Match	60.393
No Match	60.424
No Match	60.451
No Match	60.489
No Match	60.524
No Match	60.547
No Match	60.577
No Match	60.595
No Match	60.615
No Match	60.643
No Match	60.668
No Match	60.689
No Match	60.709
No Match	60.744
No Match	60.779
No Match	60.812
No Match	60.852

No Match	60.875
No Match	60.889
No Match	60.921
No Match	60.949
No Match	60.965
No Match	60.987
No Match	61.019
No Match	61.056
No Match	61.075
No Match	61.095
No Match	61.146
No Match	61.166
No Match	61.185
No Match	61.208
No Match	61.228
No Match	61.239
No Match	61.26
No Match	61.279
No Match	61.303
No Match	61.335
No Match	61.37
No Match	61.388
No Match	61.406
No Match	61.43
No Match	61.444
No Match	61.46
No Match	61.483
No Match	61.5
No Match	61.515
No Match	61.541
No Match	61.572
2,4-Imidazolidinedione, 5-[3,4-bis(trimethylsilyloxy)phenyl]-3-methyl-5-phenyl-1-(trimethylsilyl)-	61.592
No Match	61.614
No Match	61.628
No Match	61.651
No Match	61.676
No Match	61.718
No Match	61.754
No Match	61.775
No Match	61.797
No Match	61.824
No Match	61.872
No Match	61.903
No Match	61.927
No Match	61.959
No Match	61.988
No Match	62.015
No Match	62.043
No Match	62.088
No Match	62.142
No Match	62.164
No Match	62.182
No Match	62.214
No Match	62.224
No Match	62.251
No Match	62.274
No Match	62.302
No Match	62.351

No Match	62.392
No Match	62.42
No Match	62.445
No Match	62.487
No Match	62.51
No Match	62.532
No Match	62.564
No Match	62.584
No Match	62.605
No Match	62.639
No Match	62.659
No Match	62.681
No Match	62.698
No Match	62.732
No Match	62.77
No Match	62.794
No Match	62.808
No Match	62.827
No Match	62.876
No Match	62.9
No Match	62.919
No Match	62.937
No Match	62.956
No Match	62.972
No Match	62.994
No Match	63.026
No Match	63.048
No Match	63.084
No Match	63.102
No Match	63.121
No Match	63.144
No Match	63.155
No Match	63.18
No Match	63.207
No Match	63.236
No Match	63.259
No Match	63.28
No Match	63.303
No Match	63.322
No Match	63.345
No Match	63.359
No Match	63.379
No Match	63.397
No Match	63.417
No Match	63.438
No Match	63.453
No Match	63.472
No Match	63.488
No Match	63.507
No Match	63.529
No Match	63.57
No Match	63.617
No Match	63.638
No Match	63.668
No Match	63.697
No Match	63.728
No Match	63.748
No Match	63.767

No Match	63.788
No Match	63.808
No Match	63.832
No Match	63.859
No Match	63.89
No Match	63.914
No Match	63.932
No Match	63.955
No Match	64.002
No Match	64.025
No Match	64.043
No Match	64.06
No Match	64.087
No Match	64.114
No Match	64.136
No Match	64.154
No Match	64.174
No Match	64.209
No Match	64.235
No Match	64.268
No Match	64.28
No Match	64.303
No Match	64.319
No Match	64.336
No Match	64.36
No Match	64.393
No Match	64.412
No Match	64.435
No Match	64.468
No Match	64.482
No Match	64.506
No Match	64.525
No Match	64.552
No Match	64.594
No Match	64.631
No Match	64.658
No Match	64.681
No Match	64.7
No Match	64.715
No Match	64.758
No Match	64.778

Sample GG

(2-Aziridinylethyl)amine	0.64
1a,2,5,5a,6,9,10,10a-octahydro-5a-hydroxy-1,1,	0.728
2,6-Bis[2-[2-S-thiosulfuroethylamino]ethoxy]pyrazine	0.769
9-Octadecenoic acid, 2-phenyl-1,3-dioxan-5-yl ester	0.808
Butyl aldoxime, 3-methyl-, syn-	0.915
Acetic anhydride	1.057
Acetic acid, 1-methylethyl ester	1.102
4-Hydroxy-3-hexanone	1.292
4-Heptanol, 3-ethyl-	1.527
No Match	1.619
No Match	1.657
Propanoic acid, butyl ester	1.891
Benzene, 1-benzyloxy-5-diethylamino-2,4-dinitro-	1.962
1-Propanamine, N,2-dimethyl-N-nitro-	2.274
2,4,6-Cycloheptatrien-1-one, 3,5-bis-trimethylsilyl-	2.463

Trimethyl[4-(1,1,3,3,-tetramethylbutyl)phenoxy]silane	2.644
Z-1,9-Hexadecadiene	2.908
Butanoic acid, pentyl ester	3.144
Butanoic acid, pentyl ester	3.273
2,4-Dimethyl-1-hexene	3.874
Propane, 2,2'-[methylenebis(oxy)]bis[2-methyl-	4.098
8-Hydroxy-2-octanone	5.68
Pyrrolidine, 1-(1-oxo-2,5-octadecadienyl)-	5.795
4-Octadecenal	6.402
Butane, 1-(ethenyloxy)-3-methyl-	7.539
No Match	7.786
1-Tricosanol	7.972
2,2-Dimethylpropionic acid, isopropyl ester	8.238
N-Formyl-d-threo-O-methylthreonine	9.118
Pyrrolidine, 1-(1-oxo-2,5-octadecadienyl)-	9.853
2,2,4-Trimethyl-3-pentanol	10.247
1,2-Epoxyundecane	11.229
8-Dodecen-1-ol, acetate, (Z)-	11.275
4-Chloro-3-n-hexyltetrahydropyran	11.583
Methanethione, (2,5-dimethylphenyl)-(2,4,6-trimethylphenyl)-, S-oxide	12.447
No Match	12.64
Benzaldehyde, 2-(3-methylbenzoyloxy)-, (4-nitrophenyl)hydrazone	12.795
p-Trimethylsilyloxyphenyl-bis(trimethylsilyloxy)ethane	13.049
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.245
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.265
4-(1,5-Dihydrobenzo[e][1,3,2]dioxaborepin-3-yl)benzoic acid	13.383
4-Oxo-4-(para-tolyl)-butyric acid	13.404
4-Oxo-4-(para-tolyl)-butyric acid	13.422
Acetic acid, 6-morpholin-4-yl-9-oxobicyclo[3.3.1]non-3-yl ester	13.517
No Match	13.562
No Match	13.619
.psi.,.psi.-Carotene, 3,4-didehydro-1,1',2,2'-tetrahydro-1'-hydroxy-1-methoxy-	13.944
No Match	14.264
No Match	14.397
No Match	14.736
Allopregnane-7 π 11 π diol-3,20-dione	14.779
2,6-Octadienal, 3,7-dimethyl-	15.267
Geranyl vinyl ether	15.432
Methyl 16-methoxyheptadecanoate	16.22
1H-Pyrazole, 4-(trimethylsilyl)-	17.098
para-Methoxybenzenethiol	18.78
No Match	19.298
Naphthalene, 1,1'-(1,10-decanediyl)bis[decahydro-	19.394
No Match	20.438
No Match	20.461
Pyridine, 4-(1-pyrrolidinyl)-	20.878
Pyrrole-2-carbonitrile, 5-formyl-3,4-dimethyl-	21.119
(6-Hydroxymethyl-2,3-dimethylphenyl)methanol	21.191
2,7-Octanedione, 4,4-dimethyl-3-[2-(1-hydroxy-1-methylethyl)-3-methyl-3-butenylidene]-	21.254
No Match	21.312
No Match	21.369
No Match	21.402
No Match	21.427
No Match	21.473
Phenol, 2,4-bis(1,1-dimethylethyl)-	22.185
2(1H)-Benzocyclooctenone, decahydro-4a-methyl-, trans(-)-	22.549
2-Trifluoromethylbenzoic acid, 4-pentadecyl ester	25.576
Butanamide, N-methyl-4-(methylthio)-2-(2,2-dimethylpropylidene)amino-	25.595

dioxo-	30.201
Tetracosamethyl-cyclododecasiloxane	48.067
No Match	51.539



PEAK AREA **CALCULATED**
CONCENTRATION PPM
(mg/kg)

1.15E+08 0.11
1.54E+08 0.11
1.83E+08 0.11
9.99E+07 0.11
1.04E+08 0.11

1.07E+08 0.49
1.14E+08 0.50
1.26E+08 0.56
1.27E+08 0.56
1.23E+08 0.54
1.28E+08 0.57
1.07E+08 0.47
1.04E+08 0.46
1.49E+08 0.66
1.11E+08 0.49

1.51E+08 0.67
1.28E+08 0.57
1.02E+08 0.45
1.16E+08 0.51
1.40E+08 0.62
1.36E+08 0.60
1.16E+08 0.51
1.24E+08 0.55
1.57E+08 0.69
1.26E+08 0.56
1.01E+08 0.45
1.02E+08 0.45
2.08E+08 0.92
1.35E+08 0.60

1.36E+08 0.60
1.07E+08 0.47
1.55E+08 0.68
1.55E+08 0.68
1.50E+08 0.66
1.01E+08 0.45
1.03E+08 0.45
1.12E+08 0.49
1.93E+08 0.85
1.64E+08 0.72
1.01E+08 0.45
1.28E+08 0.57
1.00E+08 0.44
1.05E+08 0.46
1.39E+08 0.61
1.44E+08 0.64
2.00E+08 0.88
2.40E+08 1.06

1.57E+08	0.69
1.24E+08	0.55
1.70E+08	0.75
1.19E+08	0.53
1.13E+08	0.50
2.41E+08	1.07
1.65E+08	0.73
1.65E+08	0.73
1.05E+08	0.46
1.10E+08	0.49
1.09E+08	0.48
1.15E+08	0.51
1.91E+08	0.84
1.50E+08	0.66
1.58E+08	0.70
1.91E+08	0.84
1.24E+08	0.55
1.29E+08	0.57
2.11E+08	0.93
1.53E+08	0.68
1.12E+08	0.49
1.12E+08	0.49
1.75E+08	0.77
1.44E+08	0.64
1.06E+08	0.47
1.74E+08	0.77
1.08E+08	0.48
1.08E+08	0.48
1.05E+08	0.46
1.48E+08	0.65
2.30E+08	1.02
1.13E+08	0.50
1.46E+08	0.64
1.09E+08	0.48
1.49E+08	0.66
5.76E+08	2.55
1.60E+08	0.71
1.65E+08	0.73
1.33E+08	0.59
1.62E+08	0.72
1.50E+08	0.66
1.26E+08	0.56
1.28E+08	0.57
2.19E+08	0.97
2.38E+08	1.05
1.02E+08	0.45
4.05E+08	1.79
1.30E+08	0.57
1.59E+08	0.70
1.20E+08	0.53
2.00E+08	0.88
1.86E+08	0.82
1.84E+08	0.81
1.22E+08	0.54
1.52E+08	0.67
1.60E+08	0.71
2.09E+08	0.92
1.49E+08	0.66

1.62E+08	0.70
1.00E+08	0.44
1.10E+08	0.49
1.59E+08	0.70
1.37E+08	0.60
1.17E+08	0.52
1.94E+08	0.86
1.54E+08	0.68
1.50E+08	0.66
2.10E+08	0.93
2.07E+08	0.91
2.82E+08	1.25
2.69E+08	1.19
2.36E+08	1.04
3.21E+08	1.42
1.01E+08	0.45
1.08E+08	0.48
2.55E+08	1.13
1.76E+08	0.78
1.31E+08	0.58
1.75E+08	0.77
2.42E+08	1.07
2.92E+08	1.29
6.10E+08	2.70
3.88E+08	1.72
4.67E+08	2.07
2.01E+08	0.89
9.95E+08	4.40
1.56E+08	0.69
1.87E+08	0.83
1.10E+08	0.49
1.80E+08	0.80
1.08E+08	0.48
1.74E+08	0.77
1.30E+08	0.57
1.60E+08	0.71
1.57E+08	0.69
1.19E+08	0.53
1.89E+08	0.84
1.14E+08	0.50
1.44E+08	0.64
1.17E+08	0.52
1.34E+08	0.59
1.09E+08	0.48
1.75E+08	0.77
1.24E+08	0.55
1.42E+08	0.63
1.32E+08	0.58
1.39E+08	0.61
1.16E+08	0.51
2.09E+08	0.92
1.15E+08	0.51
1.31E+08	0.58
4.30E+08	1.90
1.37E+08	0.60
1.12E+08	0.49
1.68E+08	0.74
1.68E+08	0.74

1.28E+08	0.57
1.84E+08	0.81
1.58E+08	0.70
1.17E+08	0.52
1.46E+08	0.64
1.78E+08	0.79
1.25E+08	0.55
1.56E+08	0.69
1.18E+08	0.52
2.02E+08	0.89
1.75E+08	0.77
1.35E+08	0.60
2.27E+08	1.00
1.96E+08	0.87
1.45E+08	0.64
1.47E+08	0.65
1.11E+08	0.49
1.60E+08	0.71
1.55E+08	0.68
1.64E+08	0.72
2.09E+08	0.92
1.31E+08	0.58
1.64E+08	0.72
2.39E+08	1.06
1.14E+08	0.50
1.85E+08	0.82
1.06E+08	0.47
1.02E+08	0.45
1.02E+08	0.59
1.70E+08	0.75
1.30E+08	0.57
1.25E+08	0.55
1.49E+08	0.66
1.49E+08	0.66
1.15E+08	0.51
1.30E+08	0.57
1.03E+08	0.45
1.32E+08	0.58
1.60E+08	0.71
1.10E+08	0.49
1.49E+08	0.66
1.14E+08	0.50
1.93E+08	0.85
1.08E+08	0.48
1.19E+08	0.53
1.26E+08	0.56
2.64E+08	1.17
1.49E+08	0.66

1.27E+08	0.13
1.02E+08	0.13
3.71E+08	0.13
6.95E+08	0.13
1.11E+08	0.13
1.72E+08	0.13
1.03E+08	0.13
1.72E+08	0.13

1.87E+08	0.13
4.28E+08	0.13
2.28E+08	0.13
2.81E+08	0.13
5.73E+08	0.13
3.76E+08	0.13
1.76E+08	0.13
1.66E+08	0.13
3.03E+08	0.13
1.27E+08	0.13
1.80E+08	0.13
2.43E+08	0.13
1.06E+08	0.13
1.58E+08	0.13
1.05E+08	0.13
2.11E+08	0.13
1.35E+08	0.13
1.69E+08	0.13
1.56E+08	0.13
1.51E+08	0.13
1.59E+08	0.13
1.86E+08	0.13
1.22E+08	0.13
1.57E+08	0.13
1.24E+08	0.13
1.30E+08	0.13
1.18E+08	0.13
1.11E+08	0.13
1.74E+08	0.13
1.56E+08	0.13
1.30E+08	0.13
1.03E+08	0.13
1.78E+08	0.13
1.07E+08	0.13
1.13E+08	0.13
1.03E+08	0.13
1.58E+08	0.13
1.12E+08	0.13
1.62E+08	0.13
1.72E+08	0.13
1.79E+08	0.13
1.01E+08	0.13
1.18E+08	0.13
1.23E+08	0.13
1.32E+08	0.13
1.00E+08	0.13
1.17E+08	0.13

2.55E+08	1.14
1.04E+08	0.46
1.02E+08	0.45
1.17E+08	0.52
1.00E+08	0.45
1.04E+08	0.46
1.01E+08	0.45
1.03E+08	0.46
1.14E+08	0.51

1.25E+08	0.56
1.27E+08	0.57
1.10E+08	0.49



1.01E+08	0.04
1.34E+08	0.05
1.02E+08	0.04



1.64E+08	0.03
2.00E+08	0.03
2.42E+08	0.04
1.07E+08	0.02
1.29E+08	0.02
2.11E+08	0.04
1.26E+08	0.02
2.03E+08	0.03
1.03E+08	0.02
1.32E+08	0.02
1.82E+08	0.03
1.11E+08	0.02
2.04E+08	0.03
1.26E+08	0.02
1.79E+08	0.03
1.61E+08	0.03
1.26E+08	0.02
1.30E+08	0.02
1.07E+08	0.02
1.28E+08	0.02
1.40E+08	0.02
1.36E+08	0.02
2.06E+08	0.04
1.00E+08	0.02
1.24E+08	0.02
2.29E+08	0.04
2.43E+08	0.04
2.20E+08	0.04
1.18E+08	0.02
2.07E+08	0.04
2.66E+08	0.05
1.84E+08	0.03
2.09E+08	0.04
1.39E+08	0.02
3.04E+08	0.05
2.75E+08	0.05
1.71E+08	0.03
1.99E+08	0.03
2.31E+08	0.04
2.43E+08	0.04
2.00E+08	0.03
1.06E+08	0.02
1.76E+08	0.03
2.81E+08	0.05
2.63E+08	0.04
2.68E+08	0.05
3.12E+08	0.05
2.99E+08	0.05

3.04E+08	0.05
1.20E+08	0.02
2.12E+08	0.04
3.35E+08	0.06
2.45E+08	0.04
2.21E+08	0.04
2.06E+08	0.04
1.22E+08	0.02
2.86E+08	0.05
2.40E+08	0.04
3.16E+08	0.05
1.54E+08	0.03
1.33E+08	0.02
1.70E+08	0.03
3.14E+08	0.05
1.56E+08	0.03
3.59E+08	0.06
2.86E+08	0.05
1.15E+08	0.02
2.62E+08	0.04
1.12E+08	0.02
1.95E+08	0.03
2.71E+08	0.05
1.82E+08	0.03
2.46E+08	0.04
1.17E+08	0.02
1.75E+08	0.03
2.15E+08	0.04
1.93E+08	0.03
3.00E+08	0.05
1.56E+08	0.03
2.64E+08	0.04
2.70E+08	0.05
1.09E+08	0.02
2.78E+08	0.05
1.57E+08	0.03
2.06E+08	0.04
1.56E+08	0.03
3.60E+08	0.06
3.21E+08	0.05
1.60E+08	0.03
2.52E+08	0.04
2.36E+08	0.04
1.78E+08	0.03
2.14E+08	0.04
2.29E+08	0.04
1.67E+08	0.03
2.32E+08	0.04
2.95E+08	0.05
2.05E+08	0.03
1.45E+08	0.02
1.31E+08	0.02
2.70E+08	0.05
1.28E+08	0.02
1.71E+08	0.03
1.01E+08	0.02
1.50E+08	0.03
1.50E+08	0.03

1.74E+08	0.03
1.30E+08	0.02
1.30E+08	0.02
1.59E+08	0.03
1.03E+08	0.02
1.22E+08	0.02
1.40E+08	0.02
2.18E+08	0.04
1.29E+08	0.02
2.19E+08	0.04
1.83E+08	0.03
2.07E+08	0.04
2.82E+08	0.05
2.06E+08	0.04
1.45E+08	0.02
1.32E+08	0.02
1.38E+08	0.02
1.34E+08	0.02
1.16E+08	0.02
1.52E+08	0.03
1.27E+08	0.02
1.03E+08	0.02
2.60E+08	0.04
1.01E+08	0.02
1.10E+08	0.02
1.14E+08	0.02
1.22E+08	0.02
1.64E+08	0.03
1.36E+08	0.02
1.77E+08	0.03
2.56E+08	0.04
1.40E+08	0.02
1.45E+08	0.02
1.28E+08	0.02
1.23E+08	0.02
1.08E+08	0.02
1.51E+08	0.03
1.88E+08	0.03
1.33E+08	0.02
1.63E+08	0.03
1.20E+08	0.02
1.17E+08	0.02
1.68E+08	0.03
1.19E+08	0.02
1.22E+08	0.02
1.03E+08	0.02
1.54E+08	0.03
1.74E+08	0.03
1.12E+08	0.02
1.31E+08	0.02
1.29E+08	0.02
1.31E+08	0.02
2.10E+08	0.04
1.31E+08	0.02
1.45E+08	0.02
1.29E+08	0.02
1.53E+08	0.03
1.11E+08	0.02

1.19E+08	0.02
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1.76E+08	0.10
----------	------

3.31E+08	0.19
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1.88E+08	0.11
----------	------

329201	0.01
--------	------

135948	0.01
--------	------

281578	0.01
--------	------

615334	0.02
--------	------

709693	0.03
--------	------

518719	0.02
--------	------

525632	0.02
--------	------

906329	0.04
--------	------

669328	0.03
--------	------

968711	0.04
--------	------

1.97E+06	0.08
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787333	0.03
--------	------

585311	0.02
--------	------

4.17E+06	0.16
----------	------

534339	0.02
--------	------

865536	0.03
--------	------

1.30E+06	0.05
----------	------

9.32E+07	3.63
----------	------

106913	0.00
--------	------

1.45E+06	0.06
----------	------

398242	0.02
--------	------

1.28E+06	0.05
----------	------

504514	0.02
--------	------

407748	0.02
--------	------

4.61E+06	0.18
----------	------

3.28E+07	1.28
----------	------

750300	0.03
--------	------

7.19E+06	0.28
----------	------

1.14E+06	0.04
----------	------

3.09E+07	1.20
----------	------

288848	0.01
--------	------

11897	0.00
-------	------

110355	0.00
--------	------

48668	0.00
-------	------

1.28E+06	0.05
----------	------

1.91E+06	0.07
----------	------

27263	0.00
-------	------

748882	0.03
--------	------

757514	0.03
--------	------

926871	0.04
--------	------

1.77E+06	0.07
----------	------

112676	0.00
--------	------

172150	0.01
--------	------

866911	0.03
--------	------

76856	0.00
-------	------

2.89E+06	0.11
----------	------

4.34E+06	0.17
----------	------

881518	0.03
--------	------

7.19E+06	0.28
----------	------

574574	0.02
--------	------

1.28E+06	0.05
1.71E+06	0.07
264924	0.01
742451	0.03
2.59E+07	1.01
2.97E+07	1.16
3.13E+06	0.12
4.53E+06	0.18
953415	0.04
1.08E+06	0.04
812720	0.03
580127	0.02
3.85E+06	0.15
417399	0.02
590104	0.02
532793	0.02
173335	0.01
638739	0.02
602480	0.02
502401	0.02
3.06E+06	0.12
4.61E+06	0.18
693462	0.03
1.76E+06	0.07
434023	0.02
1.04E+06	0.04
352558	0.01
691258	0.03
434280	0.02
957018	0.04
1.12E+06	0.04
2.06E+06	0.08
498156	0.02
4.31E+06	0.17
406334	0.02
883322	0.03
1.43E+06	0.06
1.14E+06	0.04
2.67E+06	0.10
544298	0.02
577797	0.02
467059	0.02
1.79E+06	0.07
634702	0.02
575657	0.02
506319	0.02
985365	0.04
602583	0.02
912729	0.04
498122	0.02
512170	0.02
1.88E+06	0.07
476195	0.02
4.15E+06	0.16
17372	0.00
839518	0.03
899012	0.03
521681	0.02

414062	0.02
5.09E+06	0.20
521785	0.02
419579	0.02



475400	0.02
596433	0.02
952164	0.04
456786	0.02
893844	0.03
2.28E+06	0.09
713744	0.03
4.04E+06	0.16
4.05E+06	0.16
639516	0.02
680101	0.03
630046	0.02
3.08E+07	1.18
1.90E+06	0.07
1.44E+06	0.06
1.14E+06	0.04
1.57E+06	0.06
619917	0.02
813875	0.03
561060	0.02
3.74E+07	1.44
862980	0.03
518963	0.02
696505	0.03
12091	0.00
254405	0.01
330681	0.01
447138	0.02
119748	0.00
130625	0.00
3.05E+07	1.17
48866	0.00
2.17E+06	0.08
12586	0.00
21513	0.00
1.97E+06	0.08
475143	0.02
468780	0.02
31828	0.00
443118	0.02
1.11E+06	0.04
1.78E+06	0.07
36003	0.00
11560	0.00
1.74E+06	0.07
2.65E+06	0.10
991845	0.04
1.10E+06	0.04
33669	0.00
25773	0.00
1.33E+07	0.51
3.46E+07	1.33

8.07E+06	0.31
913078	0.03
424444	0.02
1.46E+06	0.06
1.19E+06	0.05
1.98E+06	0.08
756274	0.03
1.70E+06	0.07
530121	0.02
580818	0.02
835816	0.03
3.30E+06	0.13
1.24E+06	0.05
544603	0.02
151283	0.01
20934	0.00
2.47E+06	0.09
609027	0.02
1.20E+06	0.05
660315	0.03
4.38E+06	0.17
396095	0.02
7.99E+07	3.07
542836	0.02
9.35E+06	0.36
18911	0.00
190796	0.01
98847	0.00
473018	0.02
268844	0.01
337931	0.01
606049	0.02
321717	0.01
230019	0.01
533042	0.02
1.17E+06	0.04
471641	0.02
419196	0.02
456529	0.02
6.80E+06	0.26
450846	0.02
426982	0.02
6.36E+06	0.24
473772	0.02
440763	0.02
917090	0.04
721453	0.03
507583	0.02
530601	0.02
408005	0.02
574889	0.02
411747	0.02
437553	0.02
656711	0.03
514561	0.02
491952	0.02
655381	0.03
733708	0.03

1.23E+07 0.47

258088	0.01
103397	0.00
316398	0.01
83362	0.00
2.10E+06	0.08
3.11E+06	0.12
1.57E+06	0.06
1.21E+06	0.05
755246	0.03
1.46E+06	0.06
3.59E+06	0.14
3.31E+07	1.32
566850	0.02
1.40E+06	0.06
1.27E+06	0.05
405528	0.02
521498	0.02
357987	0.01
2.78E+07	1.11
443292	0.02
766173	0.03
3.88E+06	0.16
502766	0.02
2.02E+07	0.81
114510	0.00
1.64E+06	0.07
25107	0.00
803196	0.03
219755	0.01
2.33E+06	0.09
1.41E+06	0.06
2.79E+06	0.11
407473	0.02
601253	0.02
1.66E+06	0.07
708811	0.03
844499	0.03
646719	0.03
740220	0.03
1.61E+06	0.06
482561	0.02
601385	0.02
508893	0.02
429955	0.02
2.28E+07	0.91
1.18E+06	0.05
519263	0.02
1.79E+06	0.07
622325	0.02
1.04E+06	0.04
255916	0.01
184350	0.01
9.34E+07	3.74
659766	0.03
230420	0.01

564234	0.02
229976	0.01
1.26E+06	0.05
9.40E+06	0.38
1.21E+06	0.05
996516	0.04
452254	0.02
423872	0.02
416443	0.02
651136	0.03
531213	0.02
135302	0.01
214636	0.01
713048	0.03
400319	0.02
358684	0.01
170351	0.01
121715	0.00
89483	0.00
138349	0.01
223222	0.01
145473	0.01
381670	0.02
365403	0.01
180535	0.01
91990	0.00
315796	0.01
244102	0.01
106767	0.00
76553	0.00
82375	0.00
779863	0.03
1.06E+06	0.04
412405	0.02
251157	0.01
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653513	0.02
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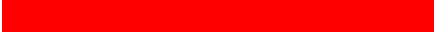
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