

Chemical

Connect™ User Guide 2019



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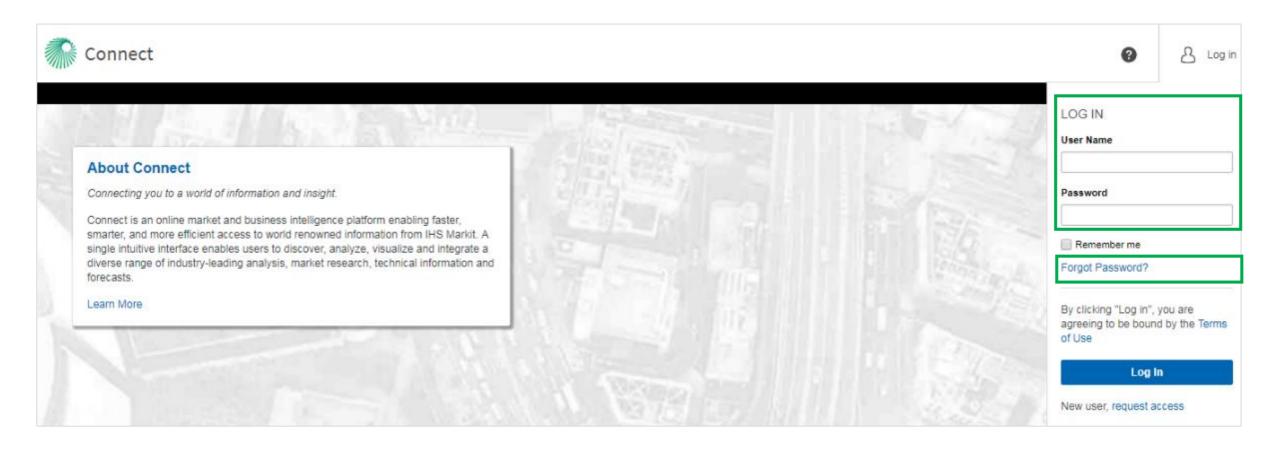
Connect Login Instructions



Connect Login Instructions

Go to connect.ihs.com and log in with your Username and Password.

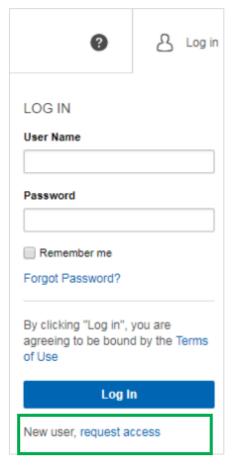
Click on 'Forgot Password?' to reset your password.





Connect New User Registration

Go to connect.ihs.com and request access.





Follow 4 steps for Connect registration



- Complete your profile. (Enter Connect in the Product Used field)
- 3. Accept the terms of service.
- 4. Complete Your Registration

Once you are provided with access, you will receive an email confirmation from customercare@ihsmarkit.com with your login instructions.

Self Registration Step 1: Enter your email address				
Create a personal account Please enter a valid corporate e-mail address to begin. Email address:				
Self Registration Step 2: Complete your profile				
Please complete your profile. Required fields are indicated by *. We will keep your information confidential. We never share with third parties.				

Go to connect.ihs.com and login

0	გ ს	og in	
LOG IN			
User Name			
Password			
Remember me Forgot Password?			
By clicking "Log in", you are agreeing to be bound by the Terms of Use			
Log In			
New user, request access			

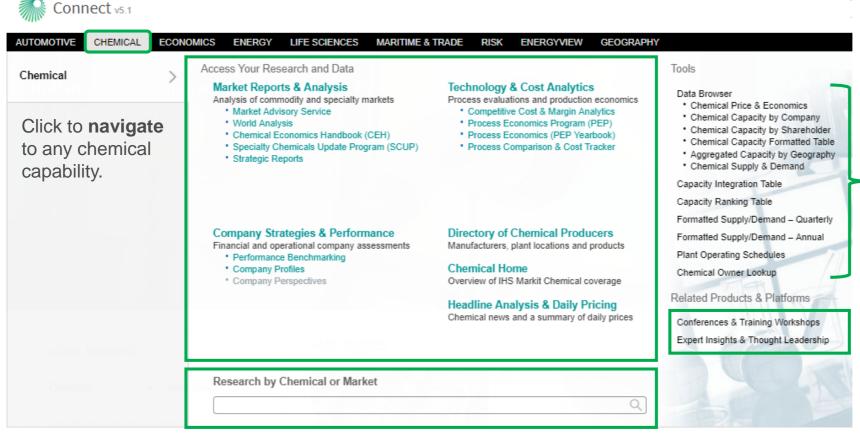


Chemical Menu



Chemical Menu Navigation

In Connect, hover over Chemical in the black menu bar to browse Chemical research and analysis.



Enter a **chemical or market** to navigate to dashboard page.

Menu options will appear based on the user's access or company subscription.

Quick access to relevant **Data Tools**, **Tables**, and other **Resources**.

Click to register for upcoming conferences & training workshops or to access a complimentary publication, featuring expert analysis of key issues shaping the Global Chemical and Energy industries.



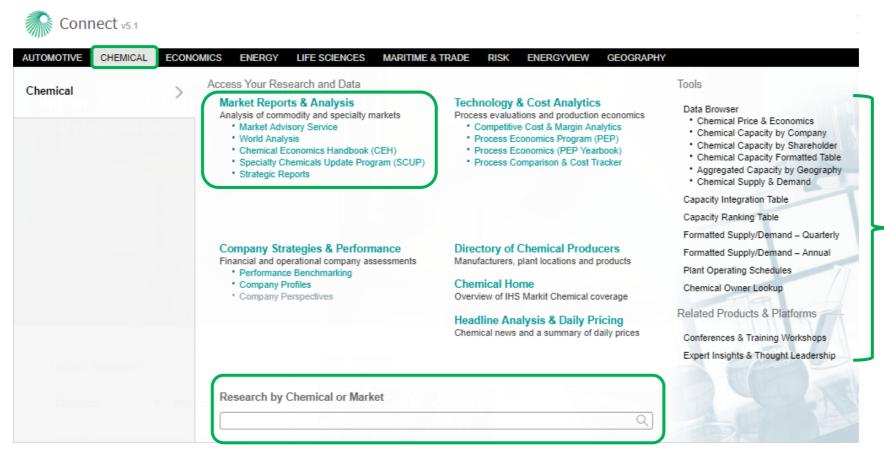
Market Reports & Analysis

Analysis of commodity and specialty markets



Market Reports & Analysis Menu Navigation

In Connect, hover over the **Chemical** menu > Click on **Market Report & Analysis** to see all Chemical reports.



Relevant **Data tools**and other **Resources**.

Enter a **chemical or market** to navigate to dashboard page.



Keyword

search

relevant

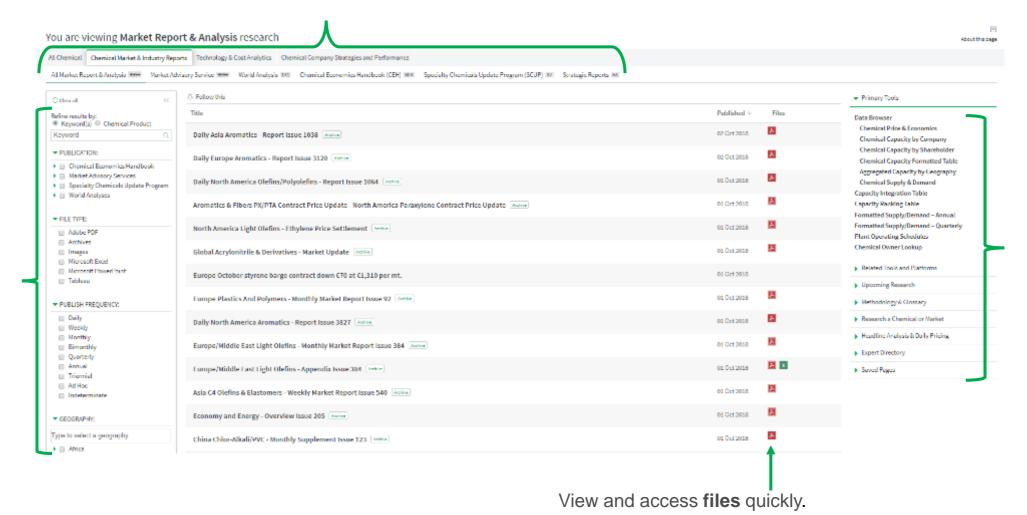
options.

and

filter

Market Report & Analysis Page Navigation

Chemical Market & Industry Reports and Data are organized within **service tabs** to instantly narrow down your search.



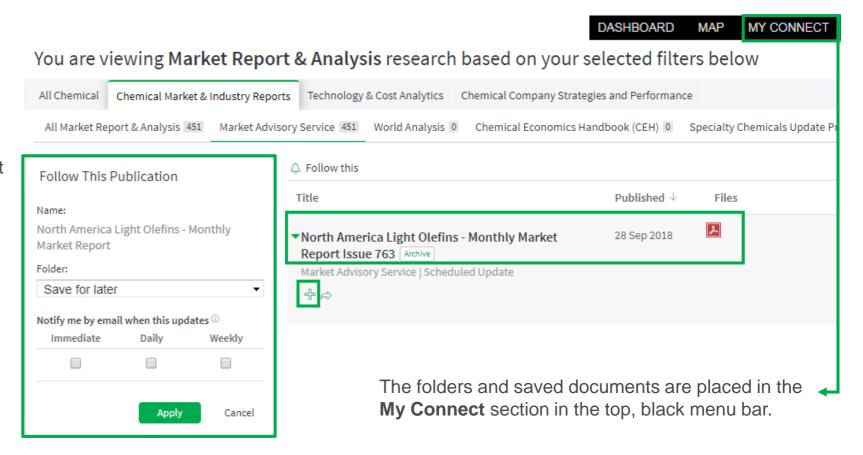
Relevant **Data tools**and other **Resources**.



Customize Your Research: Save and Follow an Individual Document

Save an individual document into My Connect and apply an email alert to be notified when that document is updated.

- Hover over the title of the report and click on the green arrow.
- Click on the plus sign that appears at the bottom of the dropdown.
- In the Follow This Publication box that appears, select the Save for later folder or click into the dropdown to create your own folder.
- 4. Select your email alert preference and click **Apply**.
- 5. The Archive button next to the report title indicates that this is a recurring deliverable and an email alert can be set. Click into this button to group and view the historical reports.
 Archive

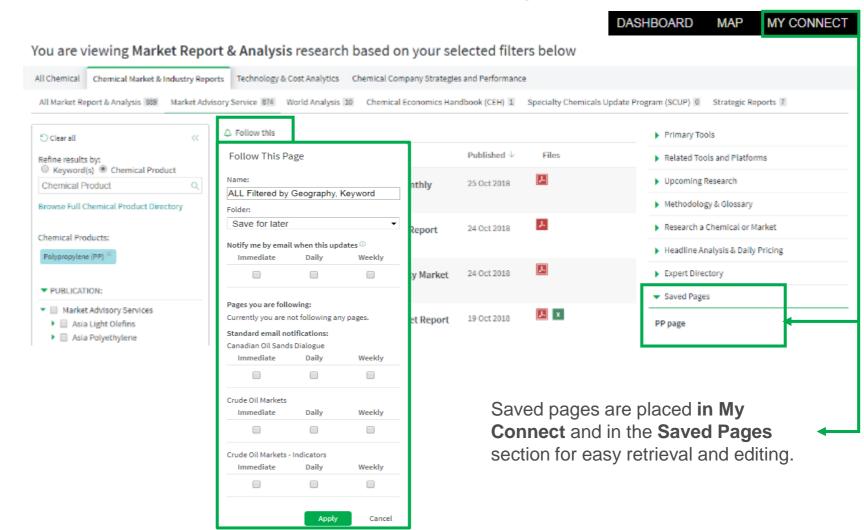




Customize Your Research: Save and Follow a Research Page

Save a research page into My Connect and apply an email alert to be notified when your page is updated.

- Apply filters or a key word search on a research page.
- Click on Follow this above the results listing.
- In the Follow This Page box that appears, Name your page and select the Save for later folder, or click into the dropdown to create your own folder.
- 4. Select your email alert frequency.
- 5. Click Apply.





Market Advisory Services

In Connect, hover over the **Chemical** menu > Click on **Market Advisory Service** to see all Market Advisory reports.

You are viewing Market Report & Analysis research

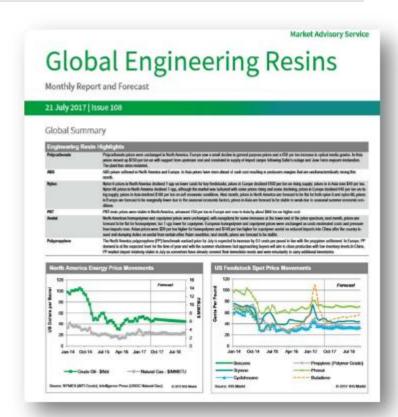


Clients value Market Advisory Services for chemical price discovery, near-term market analysis and forecasts:

- Inventory Management When is the best time to buy/sell
- Contract Negotiation Stay ahead of competition
- Trading Understand and anticipate arbitrage opportunities Plan inventory positions
- Domestic and Global Market Network Access to 60 experts around the world

Market Advisory Services provide:

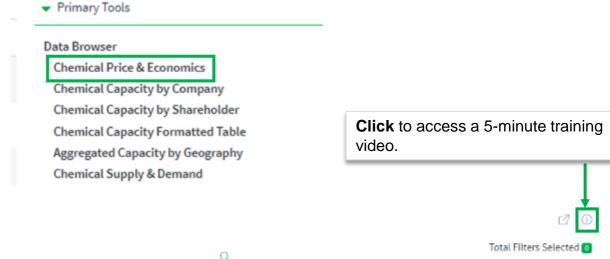
- Market prices (historical, current, forecast) provided monthly, weekly, daily depending upon the service
- Expert market analysis of prices, margins, trade, operational issues
- Future trends impacting markets
- Quarterly supply/demand balances and trade flows

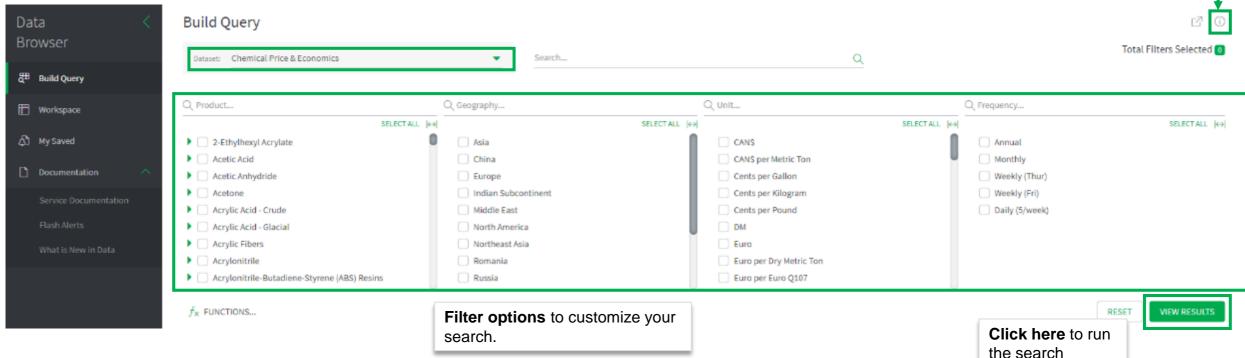




Chemical Price & Economics Data Browser

- Database can be found under the primary tools section on the right-hand side of any of the Chemical service pages.
- Allows you to customize your data query, includes details on:
 - Market Prices & Economics (historical, current, forecast)
 - Monthly, weekly, daily and annual pricing provided depending on the service.







World Analysis

In Connect, hover over the **Chemical** menu > Click on **World Analysis** to see all World Analysis reports and deliverables.

You are viewing Market Report & Analysis research

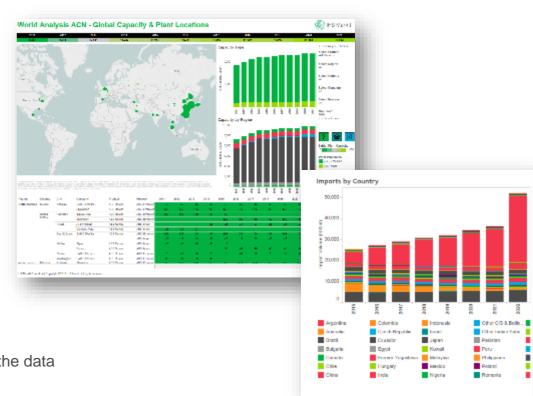


Clients value the World Analysis for data driven strategic planning:

- Raw material supply-chain optimization
- Expansion and investment decisions
- · Competitive analysis
- Product / market evaluation

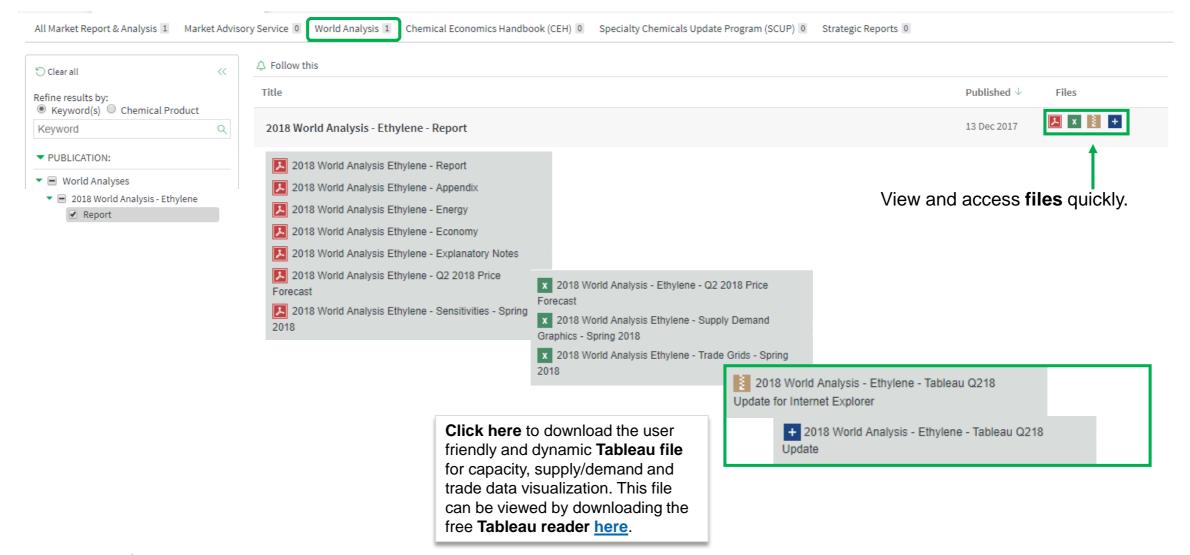
The World Analysis provides:

- Chemical production capacities; globally by company location
- Supply/Demand balances; capacity integration with main derivatives
- Production economics
- International Trade
- Historical data & 10 year forecasts
- Detailed country-level trade grids
- Upside and downside sensitivities
- Dynamic Interactive User Interface Quickly and efficiently visualize and analyze the data





World Analysis Deliverables





Browser

Build Query

Workspace

Chemical Capacity Data Browser

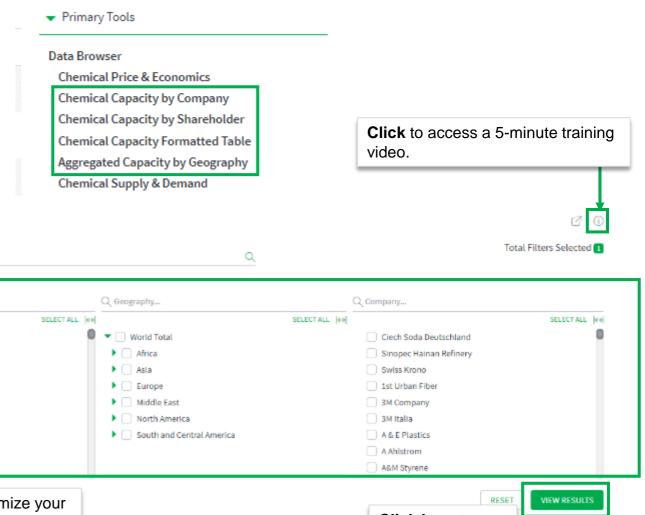
- Database can be found under the primary tools section on the right-hand side of any of the Chemical service pages.
- Allows you to customize your data query, includes details on:
 - Chemical and main derivative production capacity

Dataset: Chemical Capacity by Company - Beta

Globally by company location

Build Query

Q Concept...



Search...

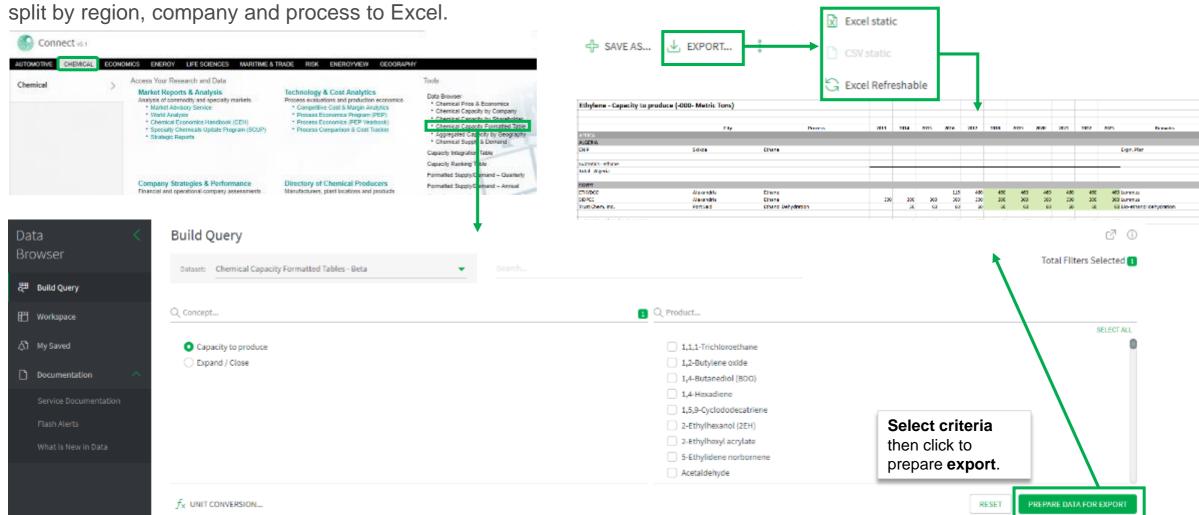
Q Product...

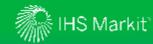
SELECT ALL CLEAR ALL [60]



Chemical Capacity Formatted Table

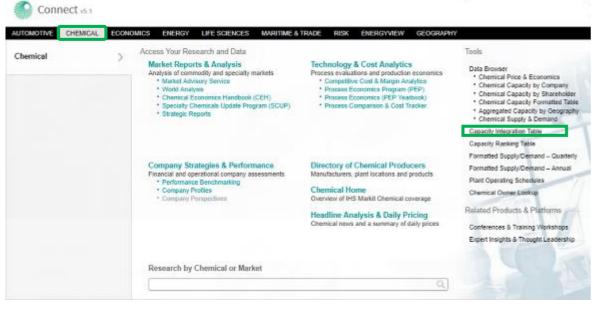
In Connect, hover over the Chemical menu > Click on Chemical Capacity Formatted Table to export Global capacity data

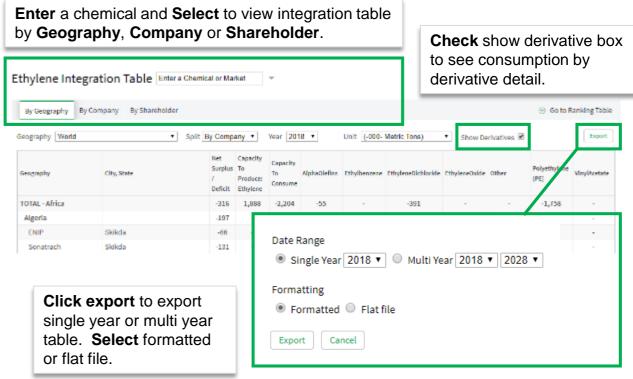




Capacity Integration Table

In Connect, hover over the **Chemical** menu > Click on **Capacity Integration Table** to access Global capacity data split by region, company and process to Excel.



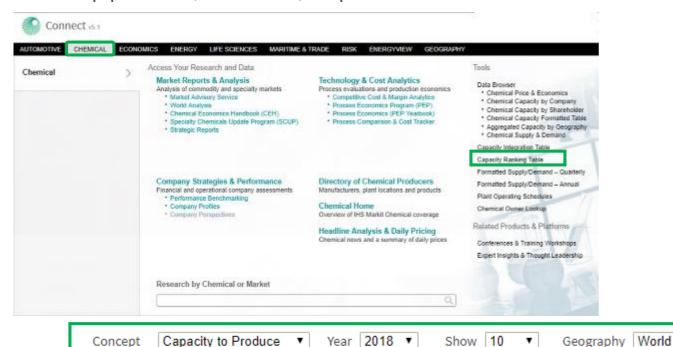


Export



Capacity Ranking Table

In Connect, hover over the **Chemical** menu > Click on **Capacity Ranking Table** to view data at the country or region level for top producer, consumer, surplus or deficit.





Unit (-000- Metric Tons)

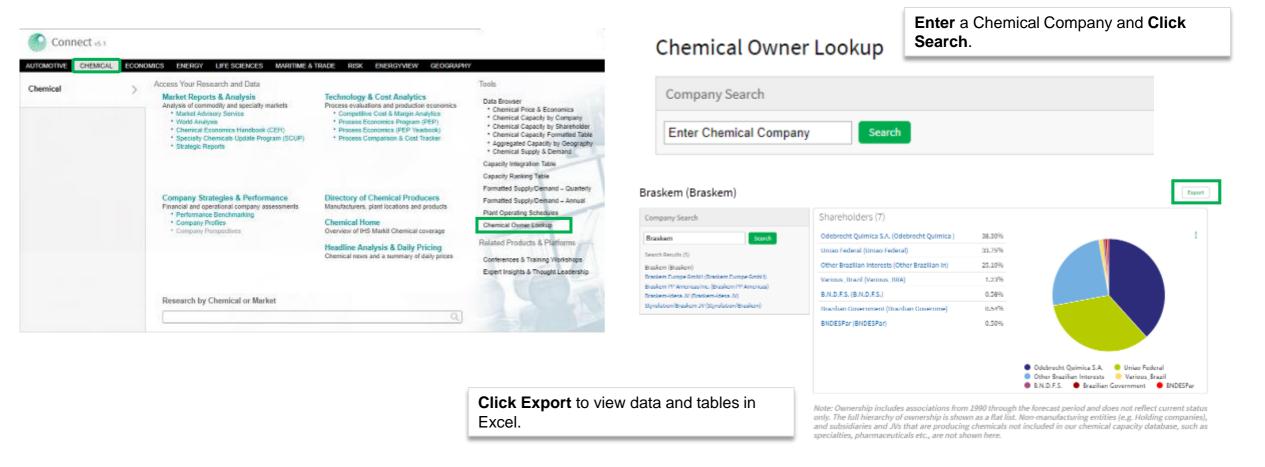
Select criteria from drop the down menus then click export.

Rank	Company	2018	% of total	
1	DowDuPont	10,761	6.05%	
2	ExxonMobil	7,263	4.09%	
3	Equistar	5,285	2.97%	



Chemical Owner Lookup

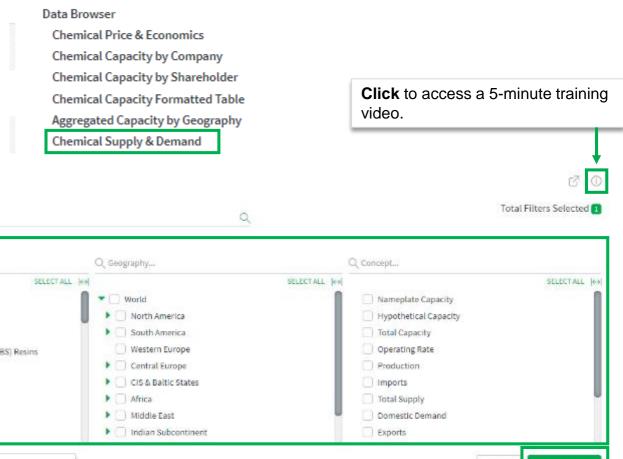
In Connect, hover over the **Chemical** menu > Click on **Chemical Owner Lookup** to view company ownership and shareholder or subsidiary data.





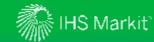
Chemical Supply & Demand Data Browser

- Database can be found under the primary tools section on the right-hand side of any of the Chemical service pages.
- Allows you to customize your data guery, includes details on:
 - Global and Country level Supply/Demand balances



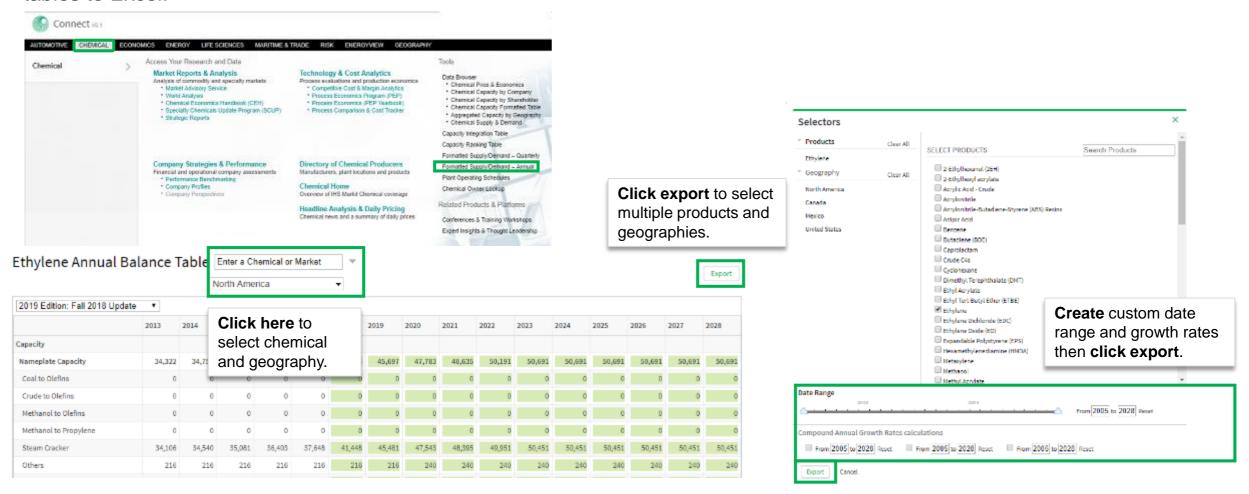
Build Query Browser Search... Dataset: Chemical Supply & Demand **Build Query** Q Version... Product... III Workspace △ My Saved 2016 Edition: Spring 2016 Update My Calculations 2017 Edition: Fall 2016 Update 2-Ethylhexyl Acrylate Documentation 2017 Edition: Spring 2017 Update Acrylic Acid - Crude 2018 Edition: Fall 2017 Update Acrylonitrile-Butadiene-Styrene (ABS) Resins 2018 Edition: Spring 2018 Update Caustic Soda (Dry Basis) 2019 Edition: Fall 2018 Update Chlorine 2019 Edition: Spring 2019 Update Dimethyl Terephthalate (DMT) 2020 Edition: Fall 2019 Update Ethyl Acrylate Ethyl Tert-Butyl Ether (ETBE) fx FUNCTIONS... Filter options to customize your VIEW RESULTS Click here to run search. the search Confidential. © 2019 IHS Markit®. All Rights Reserved.

Primary Tools



Formatted Supply/Demand Tables

In Connect, hover over the **Chemical** menu > Click on **Formatted Supply/Demand – Annual** to view and export formatted tables to Excel.





Chemical Economic Handbooks

In Connect, hover over the **Chemical** menu > Click on **Chemical Economic Handbook (CEH)** to see all CEH reports.

You are viewing Market Report & Analysis research



Serving clients for more than 60 years

- Complete coverage of the Chemical Industry
- Approximately 250 reports on topics from A-to-Z (i.e. Acetaldehyde to Zinc Chemicals)
- Includes Petrochemicals, Organics, Inorganics, Industrial Gases, Fibers, Resins and Elastomers

80-90 reports issued annually include:

- Executive summary with key commercial conclusions for the product group
- Global summary; regional coverage
- · Producers with annual capacities and plant sites
- Production figures and trends
- Consumption and forecasts by end use application
- Historical annual prices and price trends
- · Trade imports and exports



- Primary Tools
- Related Tools and Platforms
- ▼ Upcoming Research

Report Schedule - CEH 16 Oct 2018

Report Schedule - SCUP 31 Aug 2018

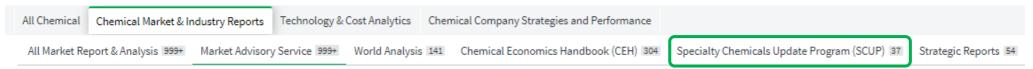
Market research & analysis of over 300 markets including chemical supply/demand, forecasts, and related trends in manufacturing, consumption and trade.



Specialty Chemical Update Program

In Connect, hover over the **Chemical** menu > Click on **Specialty Chemicals Update Program (SCUP)** to see all SCUP reports.

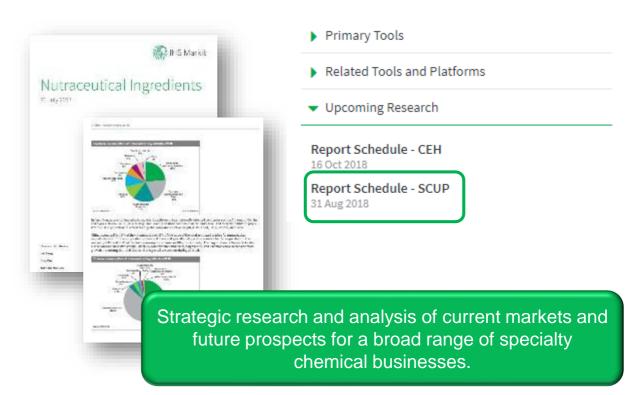
You are viewing Market Report & Analysis research



- Strategic analysis of 40 specialty chemical sectors
- Reports effectively function as a Business Plan for developing businesses in specialty chemical sectors.

Each report includes:

- · Executive summary with key commercial conclusions for the sector
- Qualitative market analysis and forecasts
- Industry structure, operating characteristics and regulatory environment
- Products, functions and markets
- Cost structure / profitability
- Technology changes and emerging substitution practices

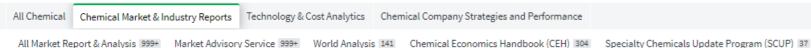




Strategic Reports

In Connect, hover over the **Chemical** menu > Click on **Strategic Reports** to see all chemical strategic reports.

You are viewing Market Report & Analysis research



 Critical response to a market need that is too complex and/or urgent to be covered in sufficient detail through ongoing market services

- Quick deployment of multi-disciplinary research, technology & consulting expertise
- Leverage existing IHS Markit expertise and datasets to create new innovative research
- Brings together an industry community who can help shape the research effort with feedback

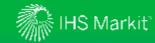
A deep collaboration of IHS Markit multi-disciplinary expertise brought together to address the most topical issues in the chemical industry today.





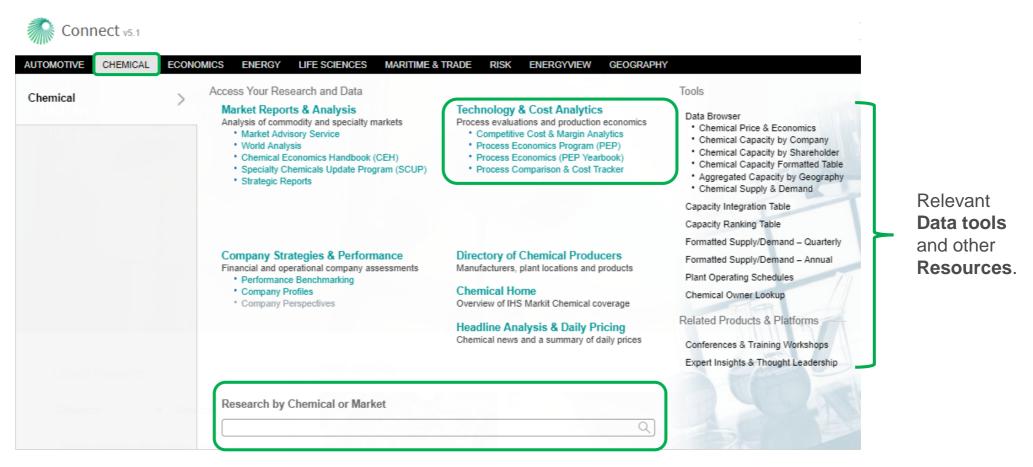
Technology & Cost Analytics

Process evaluations and production economics



Technology & Cost Analytics Research Page Navigation

In Connect, hover over the **Chemical** menu > Click on **Technology & Cost Analytics** to see all reports & data files.



Enter a chemical or market to view **dashboard** page.

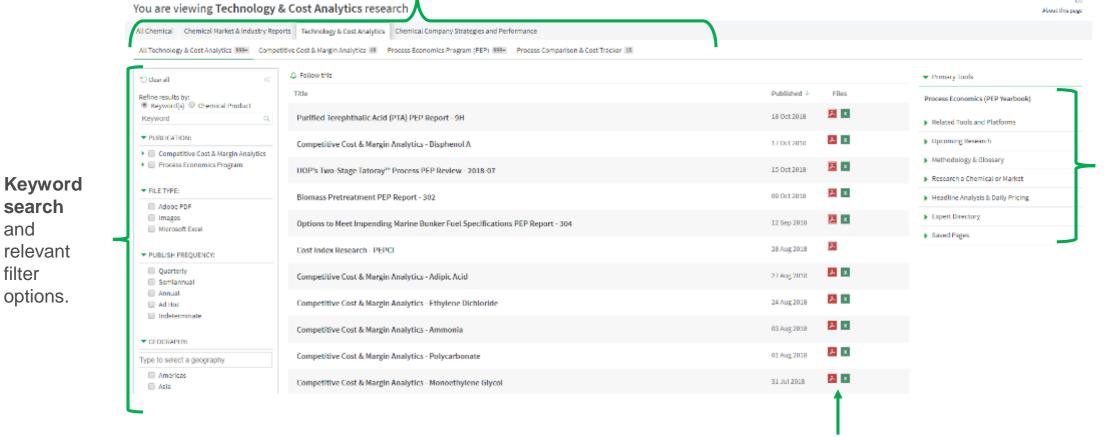


and

filter

Technology & Cost Analytics Page Navigation

Process Evaluations & Production Economics reports & data are organized within **service tabs** to instantly narrow down your search.



Relevant **Data tools** and other Resources.

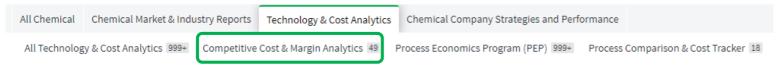
View and access files quickly.



Competitive Cost & Margin Analytics

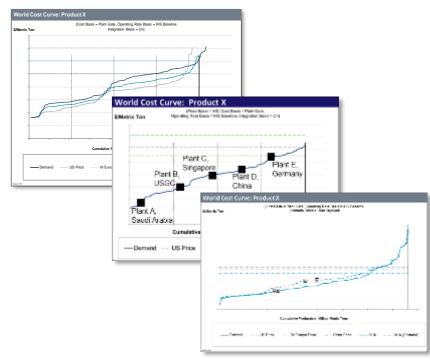
In Connect, hover over the **Chemical** menu > Click on **Competitive Cost & Margin Analytics** to view executive overview and interactive cost models.

You are viewing Technology & Cost Analytics research



Service includes:

- Energy Price Basis and Energy Outlook
- Executive Overview & Methodology
- Production cost snapshots for key technologies by regions
- Interactive excel tool with graphs, tables, global & regional views
- · Analyze oil price scenarios based on user-specific inputs
- Historical 5-year prior period, prior year, current year
- · 10-Year forecast including Hypothetical plant additions dictated by Supply/Demand dynamics
- · Quarterly model updates
- Decreased depreciation for plants more than 10-years old
- · Ability to add Sales, General & Administrative (SG&A) expenses to plant economics
- · Monthly updated 15-month forecast and 3-month history
- · Annual Curves incorporating announced or planned short-term shutdowns into production costs



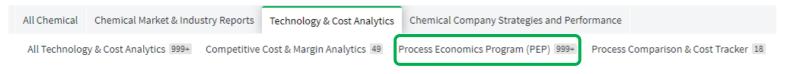
Cost and margin analytics / curves for all producers of a particular commodity chemical or polymer for the previous, current and future year outlook.



Process Economics Program

In Connect, hover over the **Chemical** menu > Click on **Process Economics Program** to view all reports and iPEP files.

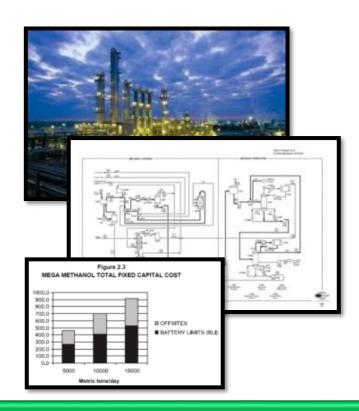
You are viewing Technology & Cost Analytics research



- Monitor global technology and commercial developments
- 50 years of chemical process economics covering over 1400 process technologies related to over 600 chemicals

Coverage of:

- Periodic techno-economic reviews of key process technologies in the chemical industry
- Plant construction cost indices providing semi-annual updates to plant equipment and construction cost escalation indices and location factors
- NEW: key economic content delivered in interactive spreadsheet modules (iPEP) allowing clients to interrogate data and quickly develop scenarios

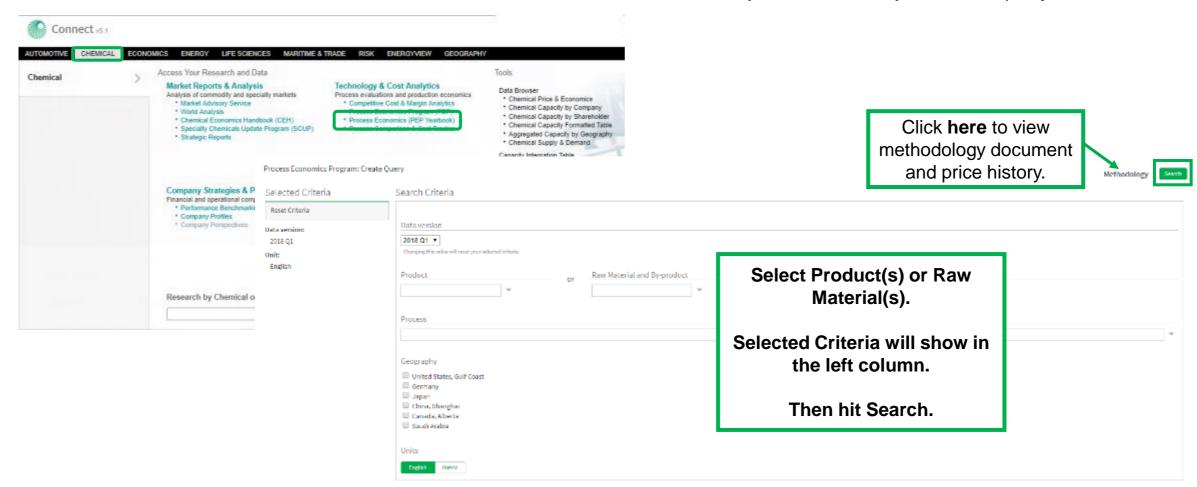


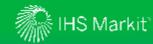
In-depth, objective economic assessments of competing commercial and emerging chemical processes technologies, and capital & production costs.



Process Economics (PEP Yearbook)

In Connect, hover over the **Chemical** menu > Click on **Process Economics (PEP Yearbook)** to create query.

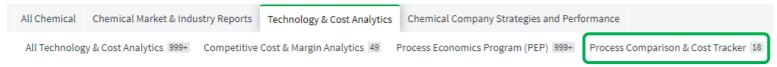




Process Comparison & Cost Tracker

In Connect, hover over the **Chemical** menu > Click on **Process Comparison & Cost Tracker** to view interactive models.

You are viewing Technology & Cost Analytics research

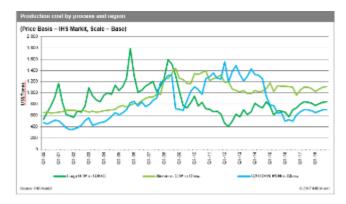


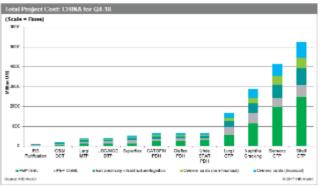
PCCT allows you to seamlessly interrogate, analyze and customize 500,000+ economic data points by chemical, alongside the technical process descriptions according to:

- Technology
- Capital and Production Economics
- Time Series
- Geography
- Environment

Key Features:

- Detailed production cost structure, broken down by cost components, for commercial and emerging process technologies
- Ability to select and compare different process technologies side-by-side
- Model populated with >15 years of historical data and 5 year IHS Markit base price forecast
- Price basis offered for feedstocks and product on a quarterly and annual basis for 6 key regions
- Ability to enter user-defined metrics up to 2040 for product price, immediate feedstock price, utilities, location factors & capital cost index
- Carbon and water footprints
- Process descriptions & block flow diagrams
- Technology & market overview







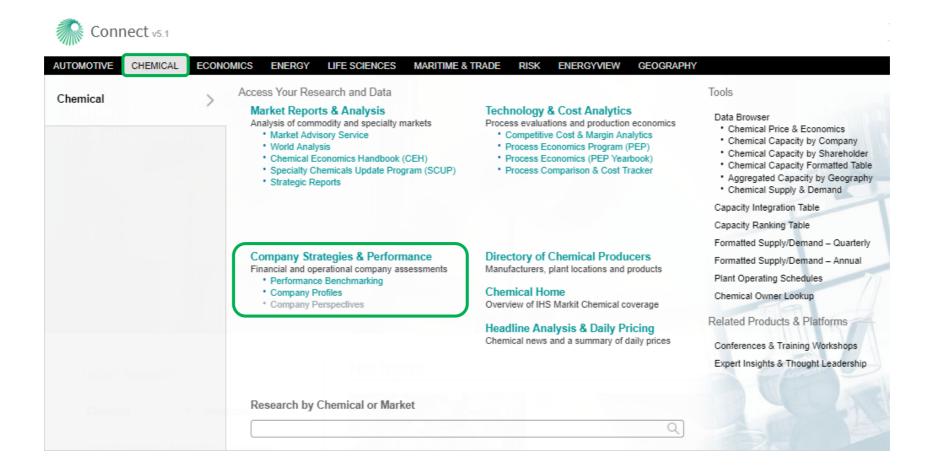
Company Strategies & Performance

Financial and Operational Company Assessments



Company Strategies & Performance Research Page Navigation

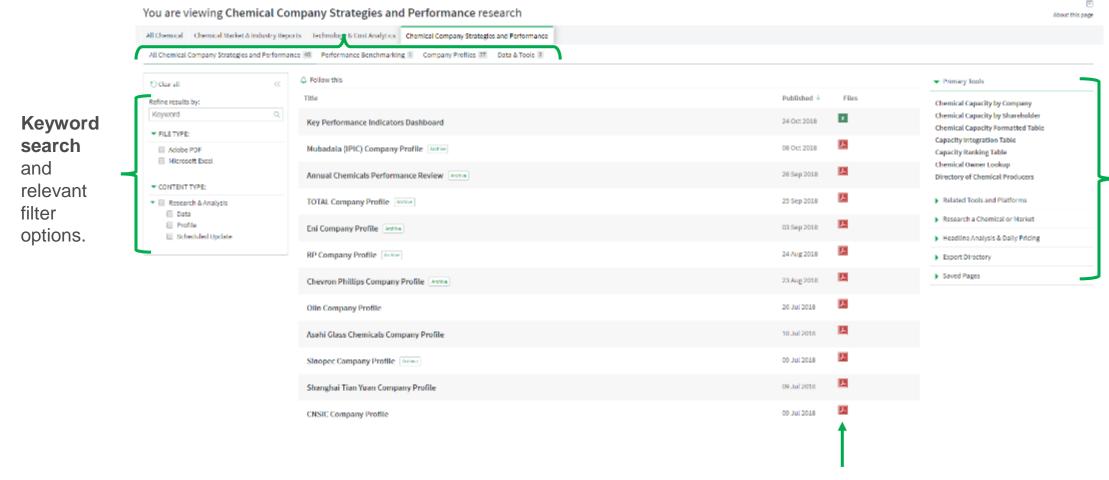
In Connect, hover over the **Chemical** menu > Click on **Company Strategies & Performance** to see all reports & data files.





Company Strategies & Performance Page Navigation

Company profiles, performance reports & data are organized within **service tabs** to instantly narrow down your search.

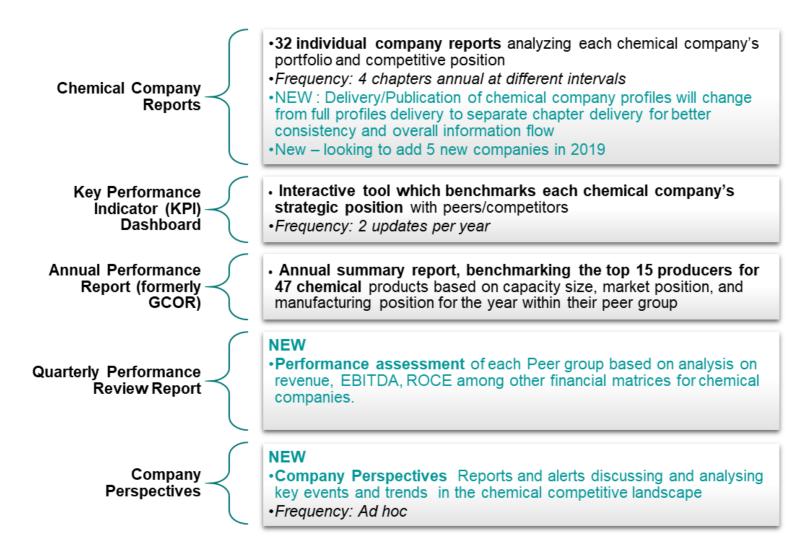


Relevant **Data tools**,
and other **Resources**.

View and access files quickly.



Company Strategies & Performance Deliverables





AMERICAS

Companies Analyzed

Company Strategy and Performance (CSP) provides an in-depth comparative view of the strategic direction and financial position of the top 64 refining and chemical companies combined, globally.

711-12111-0710	
Chemicals	Refining
Braskem	Andeavor
 ChevronPhillips 	Chevron
Chemical Co	Citgo
DowDuPont	Delek
ExxonMobil	 ExxonMobil
 LyondellBasell 	 HollyFrontier
 Mexichem 	Husky
 Occidental - 	Marathon
OxyChem	 PBF Energy
- Olin	 Petrobras
 Westlake 	 Phillips 66

SuncorValero

EMEA	
Chemicals	Refining
 AkzoNobel 	- BP
BASF SE	ENI SpA
– BP	- KPC
ENI SpA	Lukoil
- INEOS	- MOL
 Mubadala (IPIC) 	- OMV
NPC-Iran	 PKN Orlen
Royal Dutch/	Repsol
Shell	Royal
- SABIC	Dutch/Shell
 Saudi Aramco 	 Saudi Aramco
- Total	Total

APAC Refining Chemicals - Asahi Glass Co., - Indian Oil China National JXTG Salt Industries PetroChina Pertamina – CNPC Petronas Formosa Mitsubishi Reliance Petronas SINOPEC Reliance SK Energy Shanghai Tian Yuan

In 2019

Shin-Etsu

SINOPECSumitomo

Siam Cement

Chemical



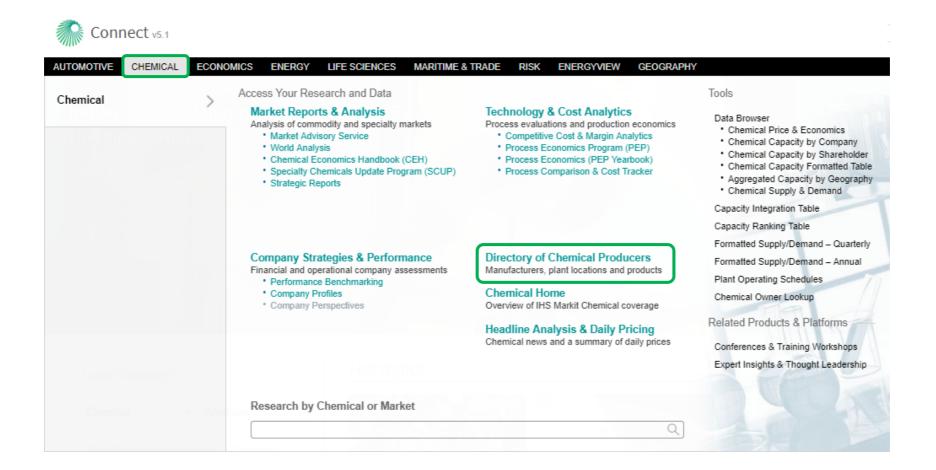
Directory of Chemical Producers

Manufacturers, Plant Locations and Products



Directory of Chemical Producers Database Navigation

In Connect, hover over the **Chemical** menu > Click on **Directory of Chemical Producers** to access database.





Directory of Chemical Producers

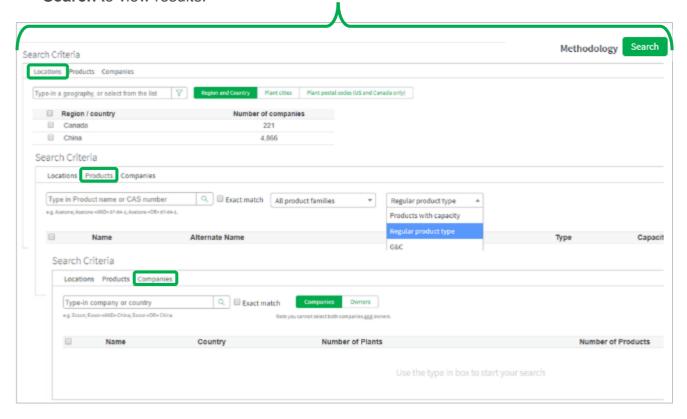
In Connect, hover over the **Chemical** menu > Click on **Directory of Chemical Producers** to access database.

- · Published continuously for more than 50 years
- Backed by an annual survey of chemical manufacturers, market studies and other sources

Coverage of:

- More than 15,000 chemical manufacturing companies
- Over 20,000 chemical manufacturing sites in more than 90 countries
- Over 21,500 specific chemical products, extensively cross-referenced
- 15.000 CAS Numbers
- 250 Chemicals with plant by plant capacity data
- Company Ownership
- Advanced Search Capabilities

Data can be queried by **Location**, **Products or Companies**. Select your criteria then click **Search** to view results.





My Connect

Email alert options and your saved research.



My Connect

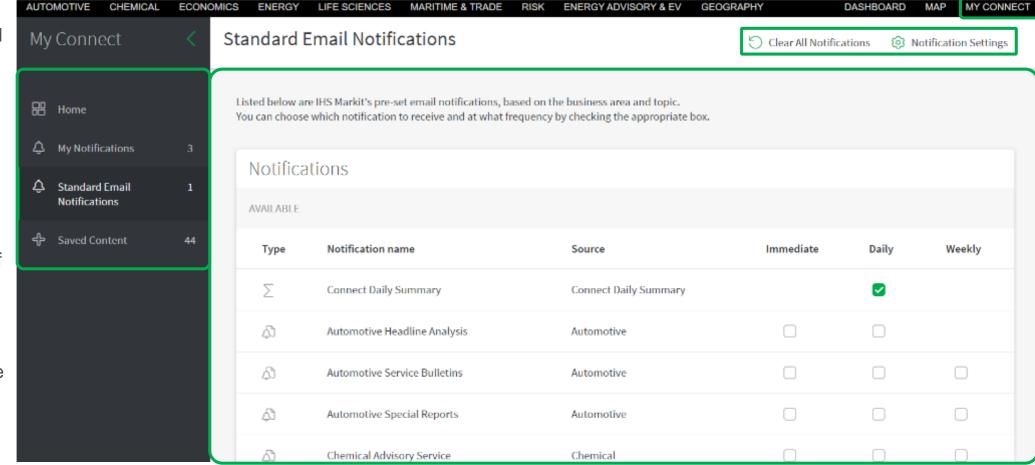
Click on My Connect in the black menu bar to manage Email Notifications and retrieve Saved Content.

Home: View your selected notifications and latest saved content.

My Notifications: View your selected email notifications by type (Immediate, Daily, Weekly)

Standard Email Notifications: A listing of all available email notifications within your subscription.

Saved Content: Retrieve and edit your saved content by type and folder.





Contact Us

For questions or assistance, contact our Customer Care team.

Schedule a complimentary Connect training:

IHSConnectTraining@ihsmarkit.com

Access IHS Markit Connect anywhere, anytime for the information, insight and analytics necessary to make critical decisions. Download the free Connect <u>iPad</u> and <u>Smartphone</u> apps to your mobile device.



Americas:

+1 800 IHS-CARE (+1 800 447-2273) Mon. to Fri. 0800 to 1800 MDT (GMT -6hrs)

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Europe, Middle East & Africa:

+44 (0) 1344 328 300

Mon. to Fri. 0800 to 1800 BST (GMT +1h)

Email: customercare@ihsmarkit.com

Asia Pacific:

+604 291 3600

Mon. to Fri. 0800 to 1800 MYT (GMT +8hrs)

Email: <u>customercare@ihsmarkit.com</u>