Market Study: Petrochemicals & Plastics - Iran

Ceresana
Market Intelligence. Consulting.

Dear readers,

Nowadays, information is available at the push of a button, always, and in overwhelming amounts. But what is the best way to find the crucial data amongst all that information?
That is why several thousand companies use the knowledge of our employees. Based on their extensive experience, they provide decisive data for the benefit of their customers.
The clearly arranged and practice-oriented studies of Ceresana offer precise analyses and well-founded forecasts - also for your markets!

Why you should make use of our knowledge

Our time-tested understanding of the markets helps you to even better assess potential chances, new products and technologies, but also your competitors. Use this knowledge to shape an evermore effective and efficient future for your company.
We provide you with reliable forecasts regarding products and markets. Get valuable information about global trends as well as opportunities and risks. Our studies will save you time and money and help you prevent costly wrong decisions.

We are your market experts

Ceresana is the most trusted market research company for the industrial sector. In addition to single-client studies, our clients also profit from already more than 100 multi-client market studies.
We would be pleased to assist your company in this challenging market environment!

Yours faithfully, Oliver Kutsch

Our studies - Your benefits

- **Gain new customers**
  Our studies show who potential new customers are and where you can find them
- **Locate new procurement markets**
  Recognize better or alternative sources of supply
- **Improve your understanding of your competitors**
  Who exactly are your competitors - and what are their strengths and weaknesses
- **Obtain a more detailed picture of your segment**
  Learn which time is the best for entering or leaving a market
- **Have a look at the future**
  Find out if new investments and technologies are worthwhile and how to gain access to future markets. We also show possible market scenarios
- **Recognize opportunities and risks**
  Identify opportunities and risks on your target markets in time

This study is useful for:

- Manufacturers and traders of ethylene, propylene, methanol, aromates, C4 fraction, and their Derivates
- Producers of natural gas, crude oil as well as ethane, naphtha, propane, and butane
- Producers and consumers of the plastics polyethylene (HDPE, LLDPE, and LDPE), polypropylene, PVC, polystyrene, and many others
- Associations and Institutes
- Executive board, technology and production, strategic planning, R&D, market research, marketing, sales and distribution, procurement

In this brochure you will find the following information:

- An introduction on page 3
- A summary of the table of contents on page 4
- Following this, there are example pages from the study
- Please use the form on the last page to easily order your copy or a free reading sample!

The end of economic sanctions against Iran creates a gold-rush atmosphere for many industries. The country counting 75 million inhabitants owns rich oil and gas resources and is returning to the world market. After almost ten years of isolation, there is an enormous pent-up demand of investments. Not only the market potential but also the need for information is high: Until business relations are completely normalized, many obstacles will have to be overcome. In this study, the market for petrochemical products and plastics in Iran is analyzed in detail for the first time: from raw materials such as methanol, ethylene, propylene, butadiene/ butylene and aromates, to their direct Derivates and intermediates, and to plastics such as polypropylene and polyethylene.

Considerable Increases in Capacity

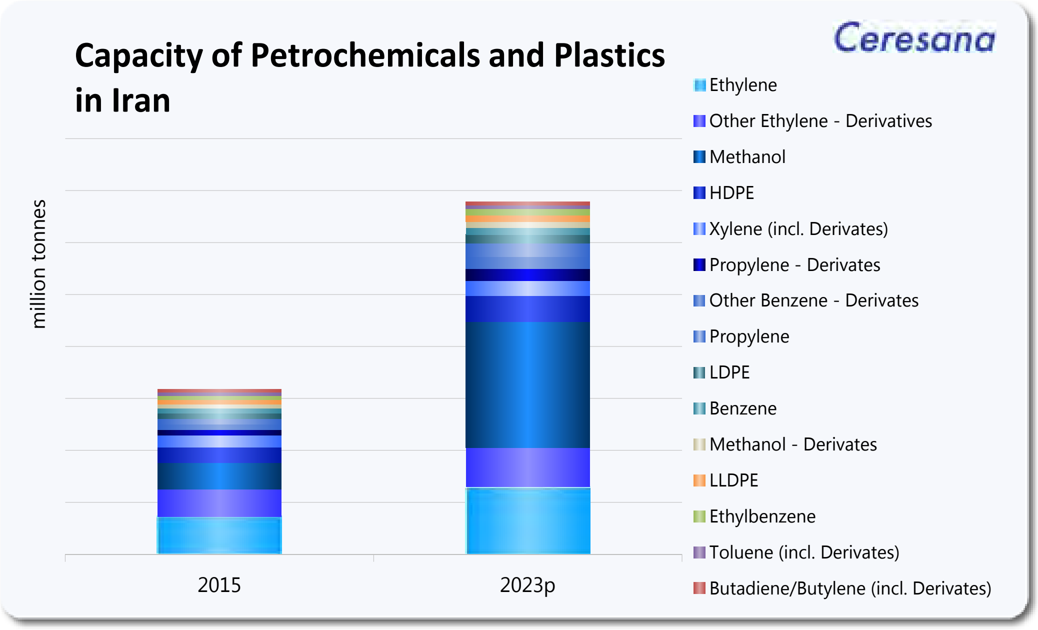
Capacities and production of the petrochemical industry of the Iran were increased in the past years. In 2015, total capacity of methanol, ethylene, propylene, butadiene / butylene, aromates and the Derivates of these products amounted to 31 million tonnes. Production capacity for the production of ethylene thereby accounted for more than 23% of the total capacity. Furthermore, ethylene Derivates, such as ethylene dichloride (EDC) and ethylene glycol, accounted for almost 17% of capacity. Another 4.8 million tonnes of capacity were consumed by the three types of polyethylene plastics LDPE, LLDPE, and HDPE. In the upcoming years, another expansion is planned. Part of this project is under construction already and is planned to be completed by 2018/19 - ad-ditional plants are being planned. Until 2023, 36 million tonnes of capacity are expected to be added.

Growing Export to Europe

Although the Iran is one of the largest domestic markets for petrochemical products in the Middle East, the focus of many Iranian companies is on export. Accounting for ap-prox. 6.8 million tonnes, a major part of petrochemical products was exported already in 2015. We expect this volume to almost double until 2023. Methanol is the most commonly exported product - in 2015, export volume amounted to almost 3.4 million tonnes. The second most important export product was HDPE. Major part of the exports was delivered to the region Asia-Pacific, mainly to China. Although demand for imports in China is currently high, we expect growth rates to decrease in the long term. This limits the growth of export for products from Iran in the future. At the same time how-ever, new possibilities are revealed: Especially exports to Western and Eastern Europe as well as to other Asian countries are expected to increase. To fulfill this aim, numer-ous constructions of petrochemical plants are supposed to be completed with the aid of foreign investors.

Profitable End of Sanctions

Due to the abolition of sanctions concerning the export of petrochemical products in 2014, exports have been rising again. We assume that the economic situation of the Iran will improve considerably after the abolition of almost all sanctions. An important step thereby were the first easing of sanctions in January 2014 as well as the Vienna nuclear agreement in the middle of 2015. After the dismantling of the Iranian nuclear program could be confirmed according to the Vienna nuclear agreement, the United Nations and the European Union abolished their nuclear-related economic and financial sanctions against the Iran on January 16, 2016, the so-called “Implementation Day”. Thus, numerous restrictions in the segments finance and energy are dropped. Financial relations are normalized like this and Iranian banks are connected to the SWIFT-system. Due to the abolition of financial and economic sanctions, we expect a partly massive increase of trade volume for various goods in the future. Presumably all industries of the Iran, from agriculture to the metal industry, will profit thereof - especially the petrochemical industry due to the high oil and natural gas deposits in the country.


Ceresana
Capacity of Petrochemicals and Plastics in Iran
million tonnes
2015
2023p
Ethylene
Other Ethylene - Derivatives
Methanol
HDPE
Xylene (incl. Derivates)
Propylene - Derivates
Other Benzene - Derivates
Propylene
LDPE
Benzene
Methanol - Derivates
LLDPE
Ethylbenzene
Toluene (incl. Derivates)
Butadiene/Butylene (incl. Derivates)

Overview value chain - petrochemicals and plastics in Iran

3 Ethylene

Ethylene can be manufactured from a range of different feedstocks: among these are ethane, butane, propane, naphtha, and gas oil. In Iran, the ethane made from natural gas dominates with a share of 95% as primary product. For an extensive analysis of the Iranian ethylene market, examination of downstream product markets is crucial (sub-chapters 3.1 - 3.5). The most important application areas for ethylene are polyethylene – split by the types HDPE, LLDPE, and LDPE – as well as ethylene dichloride (EDC).

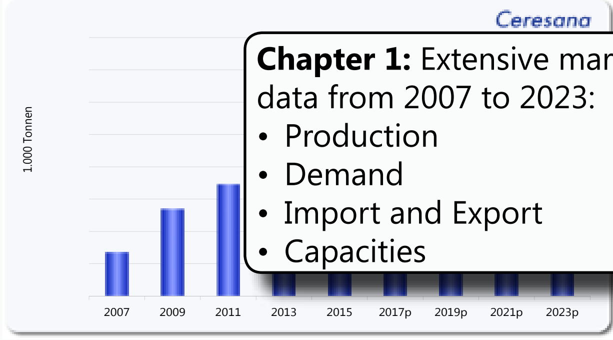
in 1.000 tonnes	2007	2009	2011	2013	2015	2017p	2019p	2021p	2023p	2015-2023
Production	X	X	X	X	X	X	X	X	X	X% p.a.
Export	X	X	X	X	X	X	X	X	X	X% p.a.
Import	X	X	X	X	X	X	X	X	X	X% p.a.
Demand	X	X	X	X	X	X	X	X	X	X% p.a.

Table: Market overview ethylene

Demand

Demand for ethylene in Iran amounted to X million tonnes in 2015. Consumption had thus risen by an average of X% p.a. since 2007. We expect market volume to continue to increase more slowly at an average growth rate of X% p.a., amounting to approx. X million tonnes in 2023.

In 2015, X million tonnes of ethylene were used in the production of HDPE in Iran. Thus, HDPE was by far the most important application area for ethylene. LDPE ranked second at a large distance, accounting for X tonnes. However, HDPE will remain the major growth market in the upcoming eight years at rates of X% p.a.



Chapter 1: Extensive market data from 2007 to 2023:

- Production
- Demand
- Import and Export
- Capacities

Graph: Demand for ethylene from 2007 to 2023

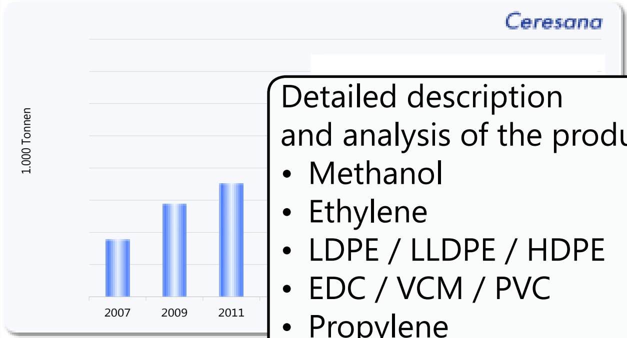
in 1.000 tonnes	2007	2009	2011	2013	2015	2017p	2019p	2021p	2023p	2015-2023
HDPE	X	X	X	X	X	X	X	X	X	X% p.a.
LDPE	X	X	X	X	X	X	X	X	X	X% p.a.
LLDPE	X	X	X	X	X	X	X	X	X	X% p.a.
EDC	X	X	X	X	X	X	X	X	X	X% p.a.
Others	X	X	X	X	X	X	X	X	X	X% p.a.
Total	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X% p.a.**

Table: Demand for ethylene from 2007 to 2023 – split by application

Production and Trade

Ethylene production accounted for X million tonnes in 2015. We forecast market volume to increase presumably by X% p.a. to approx. X million tonnes in 2023. In 2015, Iran exported about X tonnes of ethylene. Thus, export rate decreased since 2007 by X% p.a.

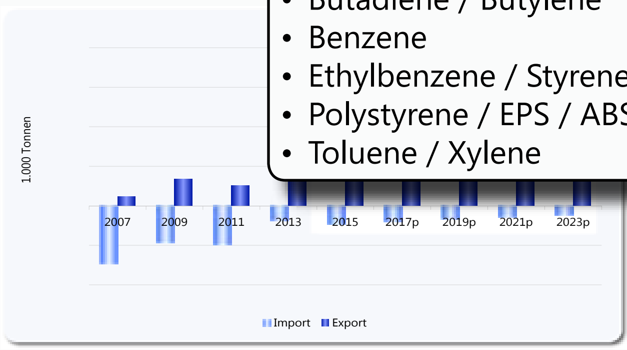
4.1 Polypropylene - Production and Trade



Graph: Production of propylene from

Detailed description and analysis of the products:

- Methanol
- Ethylene
- LDPE / LLDPE / HDPE
- EDC / VCM / PVC
- Propylene
- Polypropylene
- Butadiene / Butylene
- Benzene
- Ethylbenzene / Styrene
- Polystyrene / EPS / ABS
- Toluene / Xylene



Graph: Import and export of polypropylene from 2007 to 2023

Iranian production of PP accounted for X million tonnes in 2015. We expect an output of about X million tonnes in 2023. Compared to 2015, this corresponds to an increase by an average of X % p.a. In 2015, a considerably larger amount of PP was exported than imported. Export volume is likely to increase further in the upcoming eight years and to amount to X tonnes in 2023.

Capacities

Compared to polyethylene, the polypropylene industry in Iran is relatively small. Aggregated capacity of the six manufacturers amounts to only X million tonnes at present. In the upcoming years, an expansion of this capacity by another X Tonnes is planned.

Company	in tonnes
Jam Polypropylene Co.	XXX
Marun Petrochemical Company	XXX
Navid Zar Chimi Industrial Co.	XXX
Polynar Petrochemical Co.	XXX
Regal Petrochemical Co.	XXX
Shazand (Arak) Petrochemical Company	XXX
Total	XXX

Table: Polypropylene capacity in 2015 – split by producer

Company	in tonnes	Year
Mehr Petrokimiya Company	XXX	2017
Di Arya Polymer Company	XXX	2018
Total	**XXX**	

Table: Changes in polypropylene capacity – split by producer

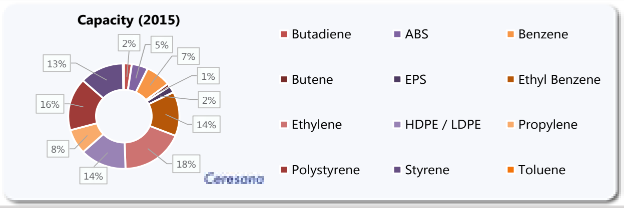
Tabriz Petrochemical Company (TPC)

Tabriz Petrochemical Complex Road
Tabriz, Azarbaijan Province
Iran

Tel.: +98 41 3428 00 00
Web: www.tpco.ir

Business Ownership

General Information about the Company



Production Sites	The company's production site is located in: • Tabriz, Iran
Profile Summary	Tabriz Petrochemical Company (TPC) was founded in 1988. TPC's design and engineering activities for the production complex started in the second half of 1989 and first installation works began in 1992. The complex was then built from the end of 1996 to early 1998. The total budget allocated and spent for the completion of the entire complex amounted to USD1,115 billion, which was provided by National Petrochemical Company (NPC) and the Iranian

Banking System. The complex encompasses an area of 391 hectares at an altitude of 1362 meters above the sea level and is situated in the south western part of Tabriz adjacent to Tabriz Refinery.

The company mainly produces chemical and polymer materials and the main products are Polyethylene, Polystyrene and ABS. In addition to the above mentioned petrochemicals the company manufactures C4 cut, C7-C9 cut, fuel oil and raffinate C4.

The company employs 940 people. TPC's quality, environmental and safety management system is ISO 9001, ISO 14001 and OHSAS 18001 certified.

Specific Information about Petrochemicals

Product Details The main feedstock for the complex is light naphtha (LSRG), heavy naphtha (HSRG), liquefied petroleum gas (LPG), acrylonitrile (ACN), alpha methyl styrene (AMS), mineral oil and polybutadiene rubber (PBR), which is mainly supplied by Tabriz and Tehran Refinery and other NPC complexes at southern Iran.

The following finished products are utilized in the afterwards stated applications:

LDPE/HDPE: Liquid containers, bags, plastic films, toys, home appliances

Expandable polystyrene: Ice containers, insulation, packing

General-purpose polystyrene: Pens, tooth brush, light bulb industry, refrigerators, automobiles, disposable containers

High-impact polystyrene: TV, radio and cassette player cases, refrigerator, washing machine and auto parts, home appliances, disposable containers

ABS: Monitor and typing machine cases, electronic parts, refrigerators, teleph…

Propyle…

1-3 But…

Toluene…

Chapter 5: Data and facts on major producers, clearly arranged by:

- Contact details
- Turnover and profit
- Production sites and capacities
- Profile summary
- Product details

Expansion Projects:

TPC has commissioned and started the construction of a new high impact polystyrene (HIPS II) plant. A C4/C5 Hydrogenation Plant is also under construction. A capacity revamp of the olefins and polystyrene plants with minor modifications is planned. Furthermore, small size projects such as the toluene extraction, hexane and naphthalene production are under review and finalization. Moreover, a furnace revamp in the olefins plant, the construction of EB/SM units and the doubling of the polyethylene plant's capacity are foreseen.

Products (current)	Capacity (tonnes/year)
Butadiene	xxx
ABS	xxx
Benzene	xxx
Butene	xxx
EPS	xxx
Ethylbenzene	xxx
Ethylene	xxx
HDPE / LDPE	xxx
Propylene	xxx
Polystyrene	
Styrene	
Toluene	

Chapter 5: In-depth profiles for the largest manufacturers, including Arvand Petrochemical, Bandar Imam Petrochemical (BIPC), Esfahan Petrochemical, Fanavaran Petrochemical, Jam Petrochemical, National Petrochemical (NPC), Pars Petrochemical, and Tabriz Petrochemical (TPC).

Thank you very much for your confidence!

For more than a decade, we have been supplying several 1,000 customers from more than 60 countries: medium-sized companies, multinational enterprises as well as associations.

Market analyses for your strategic management.

Do you have any further questions? Please do not hesitate to contact us!

Ceresana
Blarerstr. 56, 78462 Constance, Germany
Phone: +49 7531 94293-0 Fax +49 7531 94293-27
E-Mail: info@ceresana.com

Order now your

- market studies or
- free reading samples

online at www.ceresana.com/en, via fax, phone or e-mail - quickly and easily.

Ceresana
Market Intelligence. Consulting.

1) Please Choose Market Studies

Plastics
- ☐ Bioplastics
- ☐ Engineering Plastics
- ☐ Expandable Polystyrene
- ☐ Plastics - Europe
- ☐ Polyamide - PA6 & PA66
- ☐ Polyethylene - HDPE
- ☐ Polyethylene - LDPE
- ☐ Polyethylene - LLDPE
- ☐ Polypropylene
- ☐ Polystyrene
- ☐ Polyurethanes & Isocyanates
- ☐ Polyvinyl Chloride
- ☐ Silicones
- ☐ Synthetic Rubber
- ☐ Thermoplastic Elastomers

Additives
- ☐ Antioxidants
- ☐ Biocides
- ☐ Fillers
- ☐ Flame Retardants
- ☐ Pigments
- ☐ Plasticizers
- ☐ Stabilizers

Chemicals
- ☐ Benzene
- ☐ Butadiene
- ☐ Butanol
- ☐ Carbon Black
- ☐ Catalysts
- ☐ Chelating Agents
- ☐ Ethylene
- ☐ Flavors
- ☐ Fragrances
- ☐ Hydrofluoric Acid & Fluorochemicals
- ☐ Petrochemicals and Plastics - Iran
- ☐ Propylene
- ☐ Solvents
- ☐ Styrene
- ☐ Surfactants
- ☐ Titanium Dioxide
- ☐ Toluene
- ☐ Xylene

Packaging
- ☐ Bags & Sacks - Europe
- ☐ Bags & Sacks - World
- ☐ Caps & Closures - Europe
- ☐ Corrugated & Solid Board & Carton
- ☐ Flexible Packaging - Europe
- ☐ Food Packaging - Europe
- ☐ Plastic Bottles - Europe
- ☐ Plastic Caps & Closures - Europe
- ☐ Plastic Caps & Closures - World
- ☐ Plastic Containers - World
- ☐ Plastic Films - World
- ☐ Rigid Metal Packaging - Europe

Industry
- ☐ Adhesives - Europe
- ☐ Adhesives - World
- ☐ Bitumen - Europe
- ☐ Doors & Windows - Europe
- ☐ Insulation Materials - Europe
- ☐ Insulation Materials - World
- ☐ Paints & Varnishes - Europe
- ☐ Paints & Varnishes - World
- ☐ Pipes - Europe
- ☐ Plastic Pipes - Europe
- ☐ Plastic Pipes - World
- ☐ Plastic Windows - World
- ☐ Printing Inks - World

Agriculture
- ☐ Ammonia - World
- ☐ Crop Protection - World
- ☐ Fertilizers - Europe
- ☐ Fertilizers - World
- ☐ Urea - World

Value Chains
- ☐ Ethylene - China
- ☐ Ethylene - USA
- ☐ Propylene - China
- ☐ Propylene - USA

2) Language ☐ German ☐ English ☐ Please send us **free reading samples** first

3) Edition (Content is identical)	Prices
☐ **Basic** (= book) for one site	€2,900
☐ **Premium** (= PDF file) for one site	€4,000
☐ **Corporate** (= printable PDF file) for all sites	€6,100
☐ all data in Excel (available with Corporate or Premium)	€800

When ordering
2 studies: 10% discount
3 studies: 20% discount

Upon receiving your order we will send the invoice immediately. PDF-files can be sent by email.
Prices include shipping. (Customers from Germany: plus 19% VAT.) Our GTC apply.
If paying by **credit card**: Card Number: ______________________ Expiry date: __________

☐ MasterCard ☐ VISA ☐ American Express

4) Contact Details

Title/Name ______________________

Company ______________________

Department ______________________

Address

____

Email ______________________

Phone ______________________

5) Order by

Phone +49 7531 94293 0
Fax +49 7531 94293 27
Email order@ceresana.com
Web www.ceresana.com
Post Ceresana
Mainaustr. 34
78464 Constance
Germany

Order online!