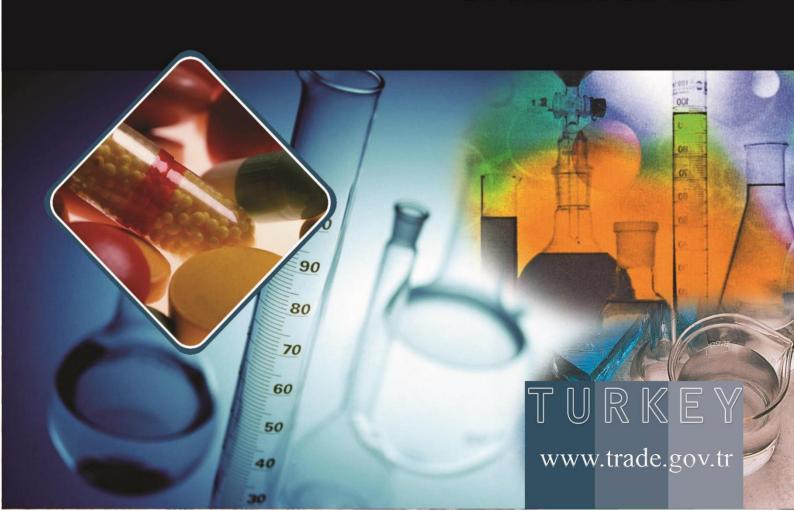




INDUSTRY



CHEMICALS



CHEMICAL INDUSTRY IN TÜRKİYE

Chemicals are indispensable to modern life and the development of the chemical industry has helped to elevate the standard of living, an indicator of the level of industrialization in a country. Chemical industry products contribute significantly to growth in other industrial sectors.

At the beginning of the 20th century, there were a few chemical establishments, manufacturing soap, liquorice extract, valonia extract, etc., within the boundaries of the Ottoman Empire. After the establishment of the Republic of Türkiye till the 1950s, these chemical works passed through a process of corporation and production began in some fields such as explosives, medicine, agricultural chemicals, detergents, printing ink and textile dyes and involved the final stages only. It was only after the 1950s, especially during the planned economy period, that the development of the chemical industry in Türkiye accelerated. Between 1960 and 1980 economic policies were based on import substitution and public sector investments were directed to petrochemicals, fertilizers and basic organic and inorganic chemicals, the fields which required high investment, with low profitability whereas private sector and foreign investments were directed to pharmaceuticals, synthetic yarns, soaps and detergents.

In 1980 Türkiye started to follow a new export-oriented economic policy. As a result of these successful policies, production and exports of the manufacturing sector boomed. The chemical industry, likewise, benefited from the new economic policy and showed an impressive increase both in production and exports.

Today, the Turkish chemical industry with its modern technology and diversified products is the key component of the industry and integrated into supply chain of national industries, especially, textiles and automotive sectors.

PRODUCTION

Türkiye has been manufacturing chemicals for very long time, being a producer of many basic and intermediate chemicals and petrochemicals. Turkish chemical production includes petrochemicals, inorganic and organic chemicals, fertilizers, paints, pharmaceuticals, soaps and detergents, synthetic fibers, essential oils, cosmetics and personal care products. The majority of chemicals production is done by the private sector.

In chemical industry, 30 % of the production has been directly used by the consumers whereas 70 % of production has been benefited in other sectors as intermediate goods and raw materials. Turkish Chemical industry has been seen as a sector dependent on imports as regards to raw materials and technology. However, Türkiye is among one of the leading countries in the world that has boron, chrome, soda ash and trona reserves.

The chemical industry, together with the sub-industries such as plastics and rubber, employs nearly 200.000 people and has about 6,2 thousand companies manufacturing various chemicals. Very small percentages of the existing companies have more than 150 employees. Most of the companies in the chemical industry, especially private sector companies, are located in Istanbul, Izmir, Kocaeli, Sakarya, Adana, Gaziantep and Ankara.

Turkish chemical industry has developed significantly in terms of quality, productivity and protection of the environment, and is in the process of adopting the EU's Technical Standards. In addition, the responsible care, the chemical industry's trademarked non-compulsory initiative on environmental, health and safety issues, has been successfully implemented since 1992.

Turkish petrochemical industry has shown considerable growth since 1970. As an upstream producer, TÜPRAŞ (Turkish Petroleum Refineries Corporation) operates as the only integrated Refinery in Türkiye with its 4 refineries in Izmit, Izmir, Kırıkkale and Batman. On the other hand, as a downstream producer, the unique company in the Turkish petrochemical industry is PETKİM Petrokimya Holding A.Ş. which is the only integrated petrochemical complex in Türkiye that operates in Petkim-Aliağa complex in İzmir. In PETKİM's Aliağa complex, a wide range of petrochemicals, all common plastics (HDPE, LDPE, PS, PVC, and PP), aromatics, ethylene glycol, phtallic anhydride, terephthalic acid, carbon black, synthetic rubber, acrylonitryl and caustic soda are produced. The total production of these petrochemicals meets about 30 % of domestic demand.

Realized with an investment value of 6,3 billion dollars by SOCAR, the biggest direct foreign investor of Türkiye, STAR Refinery was inaugurated in an international ceremony in 2018. Equipped with a capacity to decrease partially the current deficit in the Turkish petro chemical industry as one of the biggest oil operations across the Europe, Middle East and Africa (EMEA) region, STAR Refinery produce the petroleum products such as naphtha, xylene, diesel, jet fuel and LPG. STAR Refinery is expected to meet a quarter of the petroleum products needed by Türkiye.

Pharmaceuticals, plastics, soap and detergents, soda, chromium chemicals, boron chemicals, paints, sodium sulphate, fatty acids and rose oil are the other main areas of production of the chemical industry.

Türkiye has the largest soda factory in the Middle East with a total capacity of 750.000 tons/year. In addition to light and dense soda ash, refined sodium bicarbonate and sodium silicate are produced at the Mersin plant. An extremely rich trona (natural soda ash) deposit was found near Ankara, at Beypazari and at present Türkiye has substantial export potential for soda ash. Eti Soda A.Ş. has started operation in 2009 and 1 million tons/year soda ash will be produced.

Being among the top five countries supplying chrome ore to world markets, Türkiye produces and exports some of the most important chrome chemicals and derivatives such as sodium bichromate, basic chrome sulfate, chromic acid and chrome oxide.

Türkiye also enjoys a comparative advantage in boron chemicals (borax decahydrate, borax pentahydrate, boric acid and sodium perborate) due to the size of her reserves, the quality of minerals and proximity to consumer markets. Eti Maden İşletmeleri Genel Müdürlüğü is the dominant producer of boron minerals and boron chemicals and the sole-exclusive exporter of boron chemicals.

Türkiye has developed a substantial capacity and production of sodium sulphate. In sodium sulphate production, Türkiye comes in top ranks in the world.

Owing to Türkiye's climatic and ecological conditions, many medicinal and aromatic plants are cultivated or gathered from nature. Türkiye is one of the most important rose oil exporters

in the world market. The majority of these exports originate from the Isparta region. Laurel oil, thymus oil, lavender oil and origanium oil are also produced in Türkiye.

In conjunction with recent industrial growth in Türkiye, the consumption and production of many other chemicals are growing rapidly and the number of chemicals produced is increasing every year. The recent developments in textile and leather chemicals are also worth mentioning and many small and medium size companies have recently started to operate in these two sectors.

EXPORTS

In 2022, the chemical industry was one of the most important sectors among total industrial exports. The value of chemical exports was about US \$ 45,5 billion in 2022.

Table 1: Export Product Groups of Chemical Industry (Value: US\$ 1.000)

HS Code	Product label	2020	2021	2022	21/22 Change (%)	2022 Share (%)
27	Mineral fuels, oils, distillation products	4.715.233	8.516.413	16.374.408	92	36
28	Inorganic chemicals, precious metal compound, isotopes	1.648.229	2.194.173	3.548.137	62	8
29	Organic chemicals	602.028	1.068.333	1.352.166	27	3
30	Pharmaceutical products	1.826.051	1.905.245	1.899.097	0	4
31	Fertilizers	375.614	473.500	982.569	108	2
32	Tanning, dyeing extracts, tannins, derivs,pigments etc.	891.226	1.130.254	1.485.265	31	3
33	Essential oils, perfumes, cosmetics, toiletries	953.269	1.111.812	1.344.823	21	3
34	Soaps, lubricants, waxes, candles, modelling pastes	1.124.841	1.015.670	1.296.311	28	3
35	Albuminoids, modified starches, glues, enzymes	250.994	340.703	495.000	45	1
36	Explosives, pyrotechnics, matches, pyrophorics, etc.	23.003	30.007	56.616	89	0
37	Photographic or cinematographic goods	14.279	16.103	20.050	25	0
38	Miscellaneous chemical products	1.157.492	1.221.596	1.411.200	16	3
39	Plastics and articles thereof	6.971.354	10.016.195	11.570.171	16	25
40	Rubber and articles thereof	2.656.179	3.455.074	3.708.086	7	8
	General Total	23.209.792	32.495.078	45.543.899	40	100

Source: Turkish Statistical Institute

TRADE FAIRS

Fairs in Turkey

USEFUL LINKS

- Turkish Chemical Society www.turchemsoc.org
- Turkish Chemical Manufacturers Association www.tksd.org.tr
- Istanbul Chemicals and Chemical Products Exporters' Association www.immib.org.tr/en/
- Akdeniz Chemicals and Chemical Products Exporters' Association www.akib.org.tr





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