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# Turkey: Bridge between worlds

ith a population that is set to overtake Germany's within a decade and a history of chemical production dating back some 70 years, Turkey combines the demand potential of an emerging market with a supply side befitting that of a mature market.

Turkey has for many years exported chemicals to 'old' Europe. There is, however, growing confidence within the industry that it is ideally placed to take advantage of a 'crescent of development' stretching from Russia through the Central Asian republics to the Middle East and North Africa. Ask a Turkish chemicals company CEO to list Turkey's comparative advantages and its geographic location bridging Europe and Asia and position as the sole sea gate to Central Asia is sure to be mentioned.

This geographic advantage is reinforced by the history Turkey shares with Central Asia. The tribes that conquered modern day Turkey originated from the Central Asian steppes and there are strong linguistic ties between them. Turkey also has a strong cultural relationship with its neighbours in the Middle East.

From its birth in the 1930s, the chemicals industry in Turkey grew during the 1950s and 1960s to service the booming textiles sector, which was crucial to the state-led economic polices of the time. Great emphasis was placed on the import substitution of bulk petrochemicals, agrochemicals and basis organic and inorganic chemicals.

The industry started competing at an international level as a result of the free market reforms implemented by then prime minister Turgut Ozal – he later became president - during the 1980s and 1990s. In 1995, Turkey entered into a customs union with the European Union (EU) and the country was recognised as a candidate member in 2005.

The World Bank describes Turkey as an "uppermiddle income" country with a "dynamic emerging market economy" and a "lengthy track record of solid economic management". Since the economic crisis of 2001, its economy has sustained significant growth, averaging 6%/year between 2002 and 2007.

In 2008, Turkey attracted some €12.4 billion in foreign direct investment (FDI). The United Nations Conference on Trade and Development (UNCTAD) ranked it the 15th most attractive FDI destination for 2008-2010

The global economic crisis has hit hard, however, belying claims by Prime Minister Recep Tayyip Erdogan in autumn 2008 that the economic crisis had by-passed Turkey. Public debt has risen thirteenfold and predictions of the contraction in GDP this year range from the government's optimistic 3.8% to the OECD's 5.9%.

Inflation, which hit 54% in 2002, still stood at a substantial 10.4% in 2008. In 2008, the unemployment rate was 10.4% and the OECD predicts that this



Akyuz - Attitude to Turkey affects export trends

will rise to 16.4% in 2010. A further 4% of the workforce in 2008 is estimated to be underemployed.

Despite the gloomy state of the economy in 2009, there is widespread confidence that recovery is imminent. Dr Ates Kut, chief executive of chemicals at the €2 billion/year industrial conglomerate Sisecam, believes that the crisis "will be over in the not too distant future."

The OECD predicts recovery in 2010, while a mid-2009 report by investment bank Merrill Lynch forecast average 4.5%/year growth between 2010 and 2019. Confidence in the economy is based on Turkey's demographics, improving political stability and export opportunities in the surrounding growth markets.

Turkey's drive to join the EU has seen it open 11 of 35 accession chapters and harmonise numerous regulations with EU standards. Regardless of the eventual outcome of Turkey's quest for membership, it is clear that the process is making it easier and safer for foreign firms to invest here and is improving the quality of the country's chemical products.

#### **Domestic scene**

Turkey has a young and expanding population. Its median age, 28, is 12 years lower on average than most of West European countries and is growing at a rate of 1.3%/year, more the twice the rate of France and China.

Culturally and socially, Turkey is changing rapidly. Growing wealth, increased social and geographic mobility and the rise of consumerism, so evident in Istanbul's ancient bazaars and gleaming shopping malls, is driving the consumption of chemical-based products ranging from detergents to clothes.

Turkey is an important production centre for multinationals looking to gain access to the European single market. Numerous Japanese and Korean companies have chosen to locate major production facilities in the country.

The automotive sector is integral to the Turkish economy and a key market for chemical products in Turkey. In terms of output, Turkey is Europe's fifth largest producer of vehicles. Companies such as

Toyota, Hyundai and Fiat have chosen choosing to locate manufacturing and assembly plants here.

The Turkish automotive sector is overwhelmingly export-oriented and it generated some €20 billion of export revenue in 2008. The government has identified the industry as a key area to defend during the economic crisis and has temporarily slashed its sales tax on new vehicles, which is normally amongst the highest in the world.

The chemicals industry has taken advantage of the indigenous automotive industry to establish new markets. It is selling advanced plastics, powder coatings and textiles to the 14 car manufactures and three tractor producers present in Turkey, as well as their numerous downstream OEMs.

It is claimed that every fourth television used in European households is manufactured in Turkey and the electronics and white goods sectors are important consumers of Turkish chemicals. Last year, Turkey produced 9.3 million colour televisions, while the electronics industry turned over €6.6 billion in 2007. Although the majority of sub-components are imported, the electronics and white goods sectors consume some 10% of Turkey's plastics output and numerous niche chemicals producers have emerged to service the wide-ranging needs of the industry.

Production in Turkey is focused on speciality chemicals and finished products. Turkey has limited mineral reserves from which to produce bulk chemicals, with the exception of soda ash (it has the largest soda factory in the Middle East), sodium bicarbonate and silicate, chrome ore, boron and sodium sulphate.

Mustafa Bagan, secretary general of the Turkish Chemical Manufacturers Association (TCMA), notes that it is hard for Turkish companies to compete with Far Eastern producers of bulk chemicals because of the high cost of energy, unstable and insecure raw materials supplies and bureaucratic hurdles. Turkey's future, he says, lies in niche, speciality and value added goods.

Turkey remains one of the world's largest producers of chemicals for the textiles and leather industries as well as for synthetic fabrics, but the country has now established itself as a major production centre of generic pharmaceuticals, plastics, coatings, soaps, detergents and cosmetics.

Most of the world's major chemicals companies, including BASF, Cognis and Clariant, have established operations in Turkey. In addition, the country's home grown corporations are now also beginning to demonstrate their presence on the global stage.

#### FDI

Amongst emerging markets Turkey represents an attractive destination for FDI in terms of market access, regulatory environment and political stability. Whilst only an estimated 314 of the 4,000 + chemicals companies in Turkey have foreign backers, this figure masks the fact that some of the largest firms are partly or wholly owned by foreign investors.



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This success story started with a dream. A dream that we value for a better future, for the environment, for mankind and the whole world.





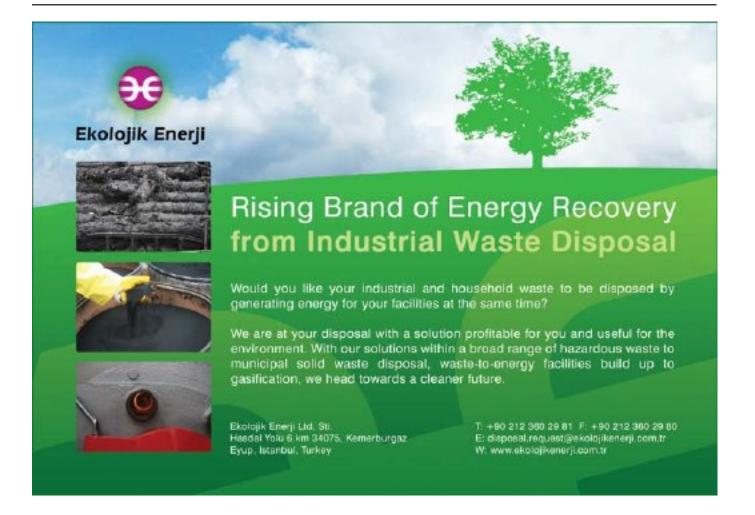








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The latest UNCTAD report estimates that Turkey attracted in excess of €1.5 billion in FDI and that overseas money paid for over 15% of the total invested in Turkey's property, plant and equipment during 2007. Key actors within the industry see a need for even more FDI if the chemicals sector is going to reach its potential.

Selcuk Aksoy, president of the Turkish Plastics Manufacturers Research, Development & Educational Foundation (PAGEV) and head of Aksoy Plastik, argues: "The biggest problem the plastics industry faces is the cost of capital. We need foreign investment here, notably in the petrochemicals sector."

The business climate in Turkey is unrecognisable when compared to ten or 20 years ago. Property rights have been strengthened and foreigners are free to set up and register companies---- without a local sponsor. In principle there can be no discrimination between foreign and domestically owned companies and there are some 80 bilateral investment agreements and over 70 double taxation treaties in place with other countries.

The chemicals industry benefits from special business zones, notably in Gebze, Tuzla and Istanbul. The tax breaks vary according to location, but in some of the zones, land purchase and construction costs are VAT-free, with five years' exemption from real estate duties.

An additional benefit of the special business zones has been to create specialist clusters. The majority of Turkey's chemicals plants are within 50 km of Istanbul and sub-sector concentration is often even more specific.

A major factor driving FDI is the availability and quality of labour. While Turkey is not in a position to compete with China and India in terms of labour costs, the high unemployment levels - which count as a negative when viewed in terms of domestic demand for products - are an asset in terms of production costs.

The government is keen to promote the low cost of labour in the country. Including the relevant taxes and social security contribution; it is possible to employ an individual full-time for €366/month.

The strength of the skills base in the Turkish chemicals labour force, combined with their perceived adaptability and work ethic leads Kut to argue that "the labour force is Turkey's greatest asset." Where skills gaps exist, the industry is acting to bridge them with some novel solutions. PAGEV has run and funded a 360-student plastics vocational school in Gebze since 2002 and is in the process of opening a second 1,000-student school in Istanbul.

#### **Export markets new and old**

Turkey's sustained economic growth between 2003 and 2008 was largely driven by exports. While the general economy expanded by 143% during this period, the value of exports grew by 179% to €90 billion.

The chemicals industry has been at the fore of the export gold rush. When Global Business Reports last visited Turkey for *Speciality Chemicals Magazine* in late 2005, the industry exported  $\epsilon$ 4.5 billion of chemicals. By 2008, it was exporting  $\epsilon$ 9.3 billion

worth of chemicals products, over 13% of Turkey's total exports.

Perhaps the most striking trend during the fouryear period since our previous visit has been the changing demographics of Turkey's chemicals trade. In 2004 the EU was the destination for 30% of Turkey's chemical exports and this is still the case, with Germany the top export market in Q1 2009. However, non-EU markets had also risen to the fore by then, with Iraq second, the UAE fourth, Russia fifth, Libya sixth and Azerbaijan seventh.

Subject to the vagaries of exchange rates and raw material prices, international trade figures are always volatile. Many in the industry argue, however, that there are wider political and economic drivers behind the growing eminence of Turkey's regional trade partners.

"The UK government has reacted more positively to Turkey's EU aspirations compared to the German administration, with a consequential effect on business sentiment," says Murat Akyuz, president of the Istanbul Chemicals & Chemical Products Exporters' Association (IKMIB) and the man charged with representing Turkey's chemicals industry on the international stage. This factor, he believes, has influenced the rising importance of the UK as an export market for Turkey.

There is a noticeable sense of frustration amongst chemicals chiefs with regard to the EU. The Turkish government has pushed through legislation in parallel with REACH and the country has numerous treaties and agreements with the EU regarding chemicals standards, but Aykuz still believes that the European Chemicals Agency "is treating Turkey as a third party country".

In parallel to this mounting disenchantment is a growing confidence in Turkey's ability to tap business opportunities in the emerging Middle Eastern, Central Asian, North African and Balkan markets. Turkish industry is looking to the developing arc to the north, east and south to drive growth rather than its traditional Western markets.

In recent years Turkey has negotiated free trade agreements with the EFTA (covering Iceland, Lichtenstein, Norway and Switzerland), Albania, Bosnia-Herzegovina, Egypt, Georgia, Israel, Macedonia, Morocco, Palestine, Syria and Tunisia to complement the EU trade union. Not all cover the full gambit of chemical products, but they provide the framework for further market integration and demonstrate Turkey's commitment to building regional export growth.

It is inevitable that a report on Turkey will describe the country as a bridge between Europe and Asia, but the benefits of Turkey's strategic location have historically been limited by the regional political climate, notably the Soviet occupation of the Turkic Central Asian states, and the level of development in the region. After all, there is little economic advantage in neighbours who cannot afford, or are not allowed, to buy your products.

In recent times, however, the oil and gas boom in Central Asia and North Africa has unleashed industrial and consumer demand for chemicals and chemical-based products. The pace of growth in these markets has outstripped domestic production capability.



Turks feel that they are at an advantage when dealing with Central Asian customers because of their shared history and close linguistic and cultural ties. According to Birgen Kaleagasi Ozemre, general manager of Kale Kimya Group, which distributes water treatment chemicals and cosmetics ingredients, the Central Asian republics have established payment channels into Turkey and find it a lot easier to raise credit lines and make transactions with Turkish companies.

The new-found confidence in Turkey's ability to take advantage of the chemicals boom in emerging regional markets is underpinned by the belief that Turkish companies have the skills and know-how to deal with the particular challenges that developing markets present.

Recep Sukru Ergin, managing director of the Turkish arm of Norwegian coatings giant Jotun, notes that his generation internationalised the Turkish chemicals industry during the 1980s and 1990s and can use the same skills in today's emerging markets. For players such as Ergin, the regional markets do not merely offer the chance to increase export revenue. Turkish subsidiaries of multinationals such as Jotun are being used as the vehicle to access the Central Asian market, with the local operations often reporting to, and being run by, the Turkish intermediate.

Many Turkish companies are in, or are actively looking for, partnership opportunities with multinationals to target the regional markets. For some, such as Turkey's fifth largest paint producer Polisan, which has a well-established JV with Rohm and Haas, the local partner takes on the production and distribution roles, with the multinational supplying raw materials and industry expertise.

Ahmet Yigitbasi, president of Turkey's third largest paints company Yasar Coatings, observes: "Local knowledge is very important to the multinational company, particularly in terms of brand and distribution capabilities."

Turkey is also beginning to exploit its geographical advantage through distribution. Turkey's transport infrastructure is still relatively undeveloped, but a number of high quality toll roads have recently been com-



Ekologic has developed novel syngas technology

pleted and the country is making significant investments to develop its nascent railway network, including a high-speed link between Ankara and Istanbul.

The crowning point of the Ankara- Istanbul line will be the first tunnel ever to cross the Bosphorus, creating a direct freight route between Europe, Syria, Iran and Iraq. At the time of writing, a trial freight service between Pakistan and Istanbul had just begun. Proponents say that the service will boost trade between the two countries by 50%.

Polisan is positioning itself as a third party logistic partner to other chemicals firms. Its 'Poliport' operation at the facility in the Gebze Industrial Zone, provides liquid and bulk chemicals handling services. The company is in early discussions to provide logistics services throughout the Middle East. CEO Erol Mizrahi says: "Logistics are everything, our logistic possibilities are really a big advantage."

#### **Environmental & quality issues**

Turkish chemicals companies have reacted to the emergence of low-cost Chinese and Indian competition since the turn of the century by differentiating themselves via quality levels and environmental

standards. Nearly all of the 40 companies Global Business Reports interviewed while compiling this special report have the relevant ISO certification and the TCMA has run a Responsible Care programme since 1993.

Due to their close links with EU clients and partners, Turkish companies have been quick to seek REACH certification. Companies such as Teknik Kimya, a plastics and chemicals producer that has diversified into the coatings, lacquers and rubber sectors, claim that they seek to distinguish themselves from the competition through their quality standards and environmental policies.

The safe disposal of hazardous waste represents a challenge to chemical companies across the world. In Turkey, which produced an estimated 1.2 million tonnes of dangerous chemicals refuse in 2008, there has been a significant gap between the amount produced and disposal capacity.

Omer Salman, founder and CEO of Ekolojik Enerji, is looking to capitalise upon this shortfall and offer a safe disposal method, while also producing electricity. Ekolojik Enerji has developed and patented a novel gasification plant which superheats



chemical refuse in order to generate syngas and inert slag. The syngas powers a turbine and the electricity generated is sold onto the national grid.

Salman is allowed to dispose of over 160 types of hazardous waste at his plant. He says that the Ekolojik Enerji process produces less than a hundredth of the emissions allowed under government regulations. Ekolojik Enerji intends to build plants in Turkey's main chemical production zones and eventually to take advantage of recent EU directives and establishing JVs in European markets.

#### Coatings

Coatings chiefs paint a rosy picture of the industry's future in Turkey. Despite the collapse of the construction and automotive sectors (household paints represented 58% of coatings output, automotive coatings 8%), the industry has held up well throughout the crisis and there are strong signals that the sector will continue to experience rapid growth.

Polisan's Erol Mizrahi notes that the peak of the economic crisis occurred during the winter, a time of low consumption. This partially shielded the household paints sector from the crisis, he says.

Turkey is Europe's sixth largest paint producer, with capacity of 850,000 tonnes/year. Production in 2008 was 600,000 tonnes - coatings companies prefer to build extra capacity for peak demand periods rather than stockpile products during the low parts of the seasonal cycle - and the market was worth approximately €2 billion.

Both production and demand in Turkey are dominated by household paints, but the country is also a major supplier of furniture coatings and industrial powder products. Turkey is the world's fourth largest ship builder and marine coatings, dominated by multinational Jotun and local firm Moravia, constituted 3% of the market in 2008.

The coatings sector is dominated by three multinationals, Bayer, Betek and Akzo Nobel (which owns Marshall Boya and has a 75% stake in Akzo Nobel Kemipol), together with two domestic players, Polisan and Yasar Coatings. Beyond these large players there are an estimated 600 SMEs operating in the sector, plus an indeterminate number of unregulated firms.

The government's Export Promotion Centre estimates that the sector grew by 11%/year between 2001 and 2006. BOSAD, the Association of the Paint Industry, believes the market grew by 4% in 2007, remained static in 2008 and will shrink by 5% in 2009.

However, the medium- and long-term future looks promising. Average paint consumption in Turkey is estimated to be 8 kg/head. In neighbouring countries, such as Greece, this figure stands at 10 kg/head and in some Western European markets consumption is as high as 20 kg/head, so the scope for growth is plain.

Turkey's changing demographics and altering social trends, including the tendency of the younger generations to move out of the parental home ear-

lier, will drive the construction sector. Turkey has urbanised rapidly over the past decade and there is a movement amongst municipalities to enforce decoration statutes in order to beautify run-down city centres and improve the appearance of hastily constructed apartment blocks.

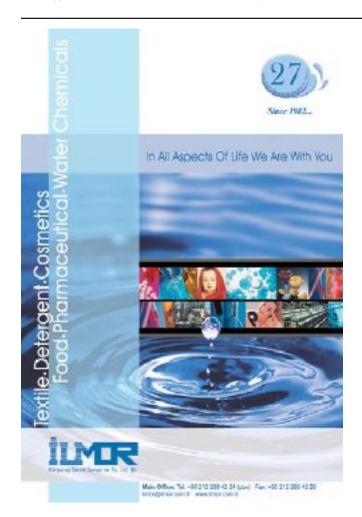
The above factors lead BOSAD chairman Ahmet Bitlis to argue: "When you consider the consumption figures, it is obvious that the Turkish paint market has a huge potential. We see a very bright future for our industry."

#### **Plastics**

Devoid of major oil reserves, Turkey is not an obvious location for a major plastics industry. Nevertheless, the country's plastics capacity is the same as that of the UK, one of Europe's largest oil producers, and is ranked joint fifth in Europe. The industry employs over 200,000 people in Turkey, and the €10 billion/year market represents 3% of GDP.

The majority of demand for plastics comes from the packaging and construction sectors, which represented 40% and 22% of consumption respectively in 2008. The sector averaged 15%/year growth between 2002 and 2007, slowing to 4% in 2008 according to Barbaros Demerci, secretary general of PAGEV.

The economic crisis pulled utilisation rates in the plastics sector down from a high of 81% in February 2008 to 65% in February 2009, but there is widespread confidence that the industry will recover and prosper. Consumption of plastics in Turkey is twice





the international average at 64 kg/head/year, but well behind the levels seen in Western Europe and the US, and the Turkish plastics industry has well-established capacity to produce value added semi-manufactured goods for the footwear, automotive, electrical and white goods sectors.

The rise of the Turkish plastics industry is all the more impressive when one considers that Turkey only has two oil refineries, in Izmir and Kocaeli, and the industry is dominated by the recently privatised Petkim. State involvement and lack of competition has stifled petrochemical production. There are, however, some signs of progress in the petrochemicals sector, with competing applications on the table to build a new refinery at Ceyhan.

While the plastics industry has done well to overcome the failings of the domestic petrochemicals industry, the lack of raw material production does present a challenge to the sector. PAGEV estimate that at least 80% of the polymers consumed in Turkey are imported and there is no domestic production of polystyrene, PET or ABS. Supply security is clearly an issue.

Selcuk Aksoy argues that the petrochemicals sector needs foreign investment to increase the volume and range of raw materials being produced and that the country should produce 50% of the raw materials it requires to ensure security. He sees the privatisation of Petkim, which the association lobbied for, as an important first step in the quest to build the downstream elements of the plastics industry.

#### Cosmetics, soaps & detergents

Mustafa Arin, board member and head of marketing at Evyap, Europe's largest soap producer and a major private label manufacturer for European companies, notes that Turkey's personal care market is immature and that rapidly changing social trends are driving demand and affecting the type of products consumed.

The sector has seen consistent growth over the last decade and confidence is strong, despite, or even because, of the crisis. Izi Morhayim, president of the water treatment to cosmetic chemicals distributor Ilmor Kimya, argues that women see cosmetics as near-essential and that the sector is relatively recession-proof.

Domestic producers control an unusually high proportion of the market in Turkey but the sector is also becoming increasingly export-focused. Turkey exported nearly €550 million worth of soap, cosmetics and personal care products in 2009. Arkimya, a producer of specialist resins and perfume waxes, generated approximately 80% of its revenue overseas last year. General manager Ali Emiroglu states that in recent months he has been aggressively pursuing contracts in the Middle East.

Turkey's involvement in the cosmetics, soaps and detergents sector extends through the value chain and exemplifies the way in which Turkish companies are partnering foreign parties. Parkim Perfume and Chemicals, a distributor and producer of fragrances and cosmetics ingredients which is in partnership with Britain's CPL, typifies this trend.

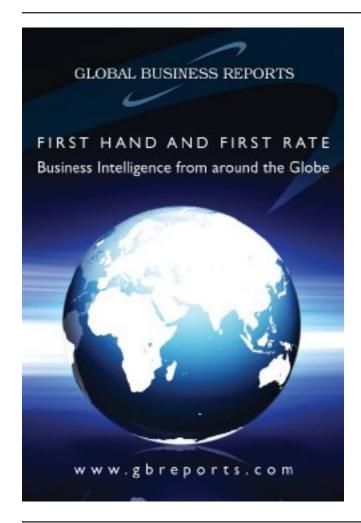
lpek Mustecaplioglu, general manager of Parkim, argues that Turkey's role in the international cosmetics, soaps and detergents sector will only grow over time as Western companies look to outsource production to cheaper production centres without compromising on quality.

#### **Conclusion**

Despite the dramatic effect of the global economic crisis, an arduous and dispiriting EU accession process and the rise of Far Eastern competition, the message from the Turkish chemicals industry is a positive one. Turkish chemicals CEOs like to remind you that they have overcome many economic crises in their time and they seem far less fazed by the current credit crunch than their counterparts in the West.

The focus in Turkey is on leveraging the country's location and cultural heritage to exploit a great swathe of development taking place around it. Turkish companies are confident of their place in the international chemicals marketplace and companies such as Evyap and Atabay Fine Chemicals, the world's largest paracetamol API producer, demonstrate that the nation can play on the international stage.

As a market, Turkey has great potential and there can be no doubt that over the medium to long term, population growth, increased affluence and cultural changes will drive the consumption of chemicals products, notably paints, cosmetics and personal care products and plastics.











# **Useful Contacts**

### The Association of Paint Industry (BOSAD)

Tel: +90 216 384 7453 Email: bosad@ttmail.com Website: www.bosad.org

#### **Global Business Reports**

Tel: +90 212 327 2464 Email: info@gbreports.com Website: www.gbreports.com

# Istanbul Chemicals and Chemical Products Exporters' Association (IKMIB)

Tel: +90 212 454 0000 Fax: +90 212 454 0001 Email: immib@immib.com.tr Website: www.immib.org.tr

## **Turkish Chemical Manufacturers Association (TKSD)**

Tel: +90 216 416 7644 Email: tksd@tnn.net

Website: www.tksd.org.tr

## **Turkish Pharmaceutical Manufacturers Association (IEIS)**

Tel: +90 212 353 1140 Email: info@ieis.org.tr Website: www.ieis.org.tr

### **Turkish Plastics Manufacturers Association (PAGEV)**

Tel: +90 212 425 1313 Email: barbarous.demirci@

pagev.org.tr

Website: www.pagev.org.tr

# Soaps and Detergents Industry Association (SDIA) and Cosmetics & Toiletries Industry Association (CTIA)

Tel: +90 216 368 7648

Email: vuranel.okay@sdsd.org.tr

Website: www.sdsd.org.tr,

www.ktmd.org.tr