Chemical Information Resources for East Europe and CIS

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MONTHLY NEWS

Chemical Industry News for Central Europe, South East Europe and Eurasia

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Key points from this month's issue

Central European petrochemical markets

- PGNiG and Synthos have signed the largest LNG supply contract in Poland to date, which provides for delivery of 8,200 tons by the end of 2021
- Grupa Azoty increased its net profit in the first half of this year to zl 394.95 million (zl 270 million higher than in the same period in 2018) due mainly to lower gas prices
- Polish PTA exports totalled 170,900 tons in the five months this year of which 143,500 tons was sent to Germany and 13,266 tons to Belarus
- Imports of propylene totalled 66,897 tons in the first five months in 2019 for a total cost of €57.703 million. Karpatneftekhim from Ukraine provided 26,861 tons

Russian chemical production

- SIBUR completed commissioning at the ZapSibNeftekhim pyrolysis plant at Tobolsk
- Russian ethylene production amounted to 1.316 million tons in Jan-Jul 2019 vs 1.269 million tons
- Russia produced 2.671 million tons of methanol in January to July 2019 against 2.464 million tons in the same period in 2018

Russian chemical trade

- Export shipments of methanol from Russia in January-July increased to 1.268 million tons compared to 1.066 million tons in the same period in 2018
- Russian exports of synthetic rubber amounted to 513,900 tons in the first six months in 2019 versus 511,100 tons in the same period in 2018.
- PTA imports into Russia totalled 220,561 tons in the first six months in 2019 against 117,653 tons in the same period in 2018
- MDI imports into the Russian market rose in the first six months in 2019 to 74,400 tons from 63,500 tons in the same period last year

Russian & regional chemical projects

- SIBUR plans to decide on the configuration of the Amur Gas Chemical Complex project during the third quarter or prior to the end of September
- Irkutsk Oil Company (INK) and Toyo Engineering signed a new agreement in early September on the construction management of the Irkutsk Polymer Plant
- TAIF has outlined that it plans to invest around 70 billion roubles in the creation of a gas chemical cluster at Almetyevsk in Tatarstan, of which the first 0.5 billion roubles will be invested in 2019
- The Nakhodka Mineral Fertiliser signs agreement with Haldor Topsoe for license for methanol
- Tatneft is collecting information and materials for assessing the environmental impact of building a maleic anhydride plant at Minnibayevo in Tatarstan
- A consortium and SINOPEC Engineering have proposed a project for methanol in Turkmenistan

CENTRAL & SOUTH EAST EUROPE

PKN Orlen-petrochemical programme & Lotos acquistion

PKN Orlen has licensed the UOP MaxEneTM process, which can increase production of ethylene and aromatics and improve the flexibility of gasoline production. The project, for Plock facility, is currently in the basic engineering stage. PKN Orlen continues to aim for the end of 2020 for clear outline of its investment programme in petrochemicals. The group expects to invest more than zl 8 billion (€1.845 billion) in petrochemical projects by 2023. In the case of installations of olefin, phenol and aromatic derivatives, the group is already at the stage of acquiring licences and base projects and the choice of contractors of these investments should take place by end of 2020.

PKN Orlen has signed an agreement in August with the State Treasury and Lotos Group regarding the purchase of shares of the Gdansk company. The combination of the potentials of both companies is of strategic importance both in the context of development investments and the diversification of crude oil supplies, which is important for the security of Poland but also the region. In the first half of 2019, the net profit for Lotos amounted to zl 637 million compared to zl 855.7 million in the corresponding period in 2018. In the second quarter this year, the Lotos refinery at Gdansk processed 2,749 million tons of crude oil, up by 4.2% more than in 2018. The EBITDA of Grupa Lotos in the second quarter of 2019 amounted to zl 783.3 million, down by 4.6%.

Polish Propylene Imports (Jan-May 19)

Country	*Tons*	*€ million*
Austria	4,901	4.221
Germany	5,959	5.287
Lithuania	3,824	3.431
Russia	17,136	14.857
Ukraine	26,861	22.867
Hungary	7,115	6.244
Others	1,101	0.896
Total	66,897	57.703

Polish propylene imports, Jan-May 2019

Imports of propylene totalled 66,897 tons in the first five months in 2019 for a total cost of €57.703 million. Ukraine provided the largest volume of imports, from Karpatneftekhim, and totalled 26,861 tons for a total cost of €22.867 million. Germany was the second largest supplier, shipping 17,136 tons at a cost of €14.857 million. Imports dropped in April and May this year due to increased propylene production at Plock, particularly following the start-up of the metathesis plant. Production of propylene in Poland totalled 263,600 tons in the first seven months in 2019 against 158,500 tons in the same period last year.

Polymery Police-capital increase

Grupa Azoty Police adopted a resolution on 26 August regarding the increase of capital for Polymery Police, for the construction of the polypropylene and propylene facilities in the north of Poland. The final number and issue price of the new issue shares will be determined by the company's management board by 7 November 2019.

A comprehensive project contract has already been agreed with Hyundai Engineering. In addition, companies from the Grupa Azoty have signed a letter of intent with Grupa Lotos regarding the potential capital involvement of this group at the level of approximately zl 500 million.

Hydrogen catalysts & PTA-Wloclawek

PKN Orlen is constructing s pilot installation at Wloclawek to conduct research into hydrogenation catalysts. Mostostal Puławy is the general contractor of the investment in which PKN Orlen states that the new construction will be coupled with the PTA plant.

PKN Orlen at Płock uses 264 types of catalysts and other intermediaries for oil processing reactions in the refinery part and 131 in the petrochemical part. PKN Orlen decided to launch its first pilot plant for testing hydrogenation catalysts for PTA production to ensure cost and time optimisation for the selection of the best process variants. The new pilot plant will allow testing of catalysts on an industrial scale on a hydrogenation plant built next to the hydrogenation reactor.

Polish phenol & bisphenol trade, Jan-May 2019

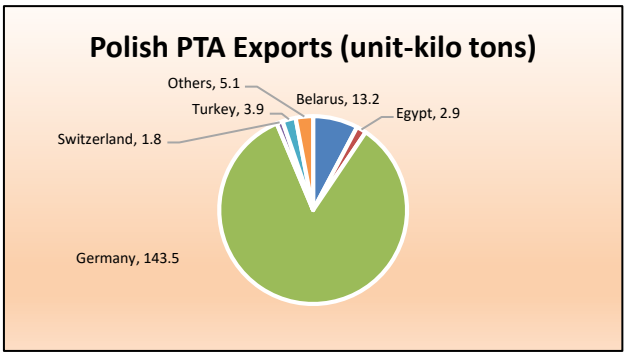
Poland imported 45,929 tons of phenol in the first five months in 2019 at a total cost of €42.581 million. The major supplier was Germany providing 36,536 tons at a cost of €33.337 million, followed in second place with Finland with 6,358 tons at cost of €6.028 million. Other suppliers included Russia with 1,718 tons at €1.513 million and Saudi Arabia with 1,097 tons at a cost of €1.148 million. Poland exports only small volumes of phenol from its production plant at Plock.

Polish Phenol Imports (Jan-May 19)		
Country	***Tons***	***€ million***
Finland	6,358	6.028
Germany	36,536	33.337
Russia	1,718	1.513
Saudi Arabia	1,037	1.148
Others	0.28	0.589
Total	45,649	42.615

Poland imported 5,775 tons of bisphenol A in the first five months at a total value of €4.086 million. The main suppliers to the Polish market included South Korea with 2,576 tons, Germany 1,717 tons and Russia 1,440 tons. Bisphenol A production was ceased by PCC Group in 2009.

Polish PTA exports, Jan-May 2019

Polish PTA exports totalled 170,900 tons in the five months this year of which 143,500 tons was sent to Germany and 13,266 tons to Belarus. PKN Orlen is currently trying to make improvements in the PTA process a Wloclawek, including work on a new method of recovery of metal ions from wastewater generated in the PTA production process. The PTA plant at Wloclawek possesses a production capacity of 600,000 tpa and was opened in 2011.



HIP Petrohemija-privatisation

The IMF continues to advise Serbia's government that it needs to sell HIP Petrohemija in order to avoid problems with the company in the medium term. Even though in the last few years the company has been making profits and there are no short-term concerns, the IMF thinks this may be a good opportunity to resolve the situation of the company. However, the Serbian government is no hurry to sell Petrohemija.

HIP-Petrohemija Exports (unit-kilo tons)		
Product	***Jan-Jun 19***	***Jan-Jun 18***
Polyethylene	43.6	61.2
Styrene Butadiene Rubber	7.6	8.8

The company generated a gross profit of €917 million in 2018. €9.2 million was earmarked for capital investment projects and €9.1 million was contracted. Petrohemija no longer uses state subsidies. Previously privatisation was considered important for investment into other products such as polypropylene, but the outlook is much improved. Regarding current ownership, NIS, majority owned by Gazprom Neft, owns 12.72% Srbijagas owns 13.38%, and another 4.87% is controlled by power distributor Elektrovojvodina. The Serbian government owns the majority stake and controls a further 13.63% via the country's Development Fund. Regarding recent production Petrohemija completed a maintenance shutdown in August, lasting one week, affecting ethylene, HDPE and LDPE production.

Polish Methanol Imports (Jan-May 19)		
Country	***Tons***	***€ million***
Belarus	2,456	0.794
Lithuania	4,590	1.495
Germany	12,423	3.839
Norway	13,023	3.588
Russia	174,472	47.697
Slovakia	1,037	0.375
Venezuela	22,951	6.448
Others	226	0.341
Total	231,178	64.341

Polish methanol imports, Jan-May 2019

Polish methanol imports totalled 231,178 tons in the first five months this year, down by 10% against the same period last year. Costs for the first five months amounted to €64.3 million. Russia supplied 174,472 tons for €47.697 million, followed by Venezuela with 22,951 tons for €6.448 million.

Central European methanol market

Romanian methanol plant Viromet restarted production in July based on imported gas. Specialized in the production of methanol, formaldehyde, synthetic resins and plastics products, the company produces 456 tons of methanol per day, corresponding to a consumption of 22 million cubic metres of gas. Viromet will produce 66,000 tons of resin for the wood industry to be distributed to Kronospan Sebeş. The investor hopes to complete an investment in a new reactor by 1 October, which will result in increasing production of methanol to 825 tons a day.

MSK Exports (unit-kilo tons)		
Product	**Jan-Jun 19**	***Jan-Jun 18***
Methanol	49.2	57.6
Acetic Acid	32.6	52.1

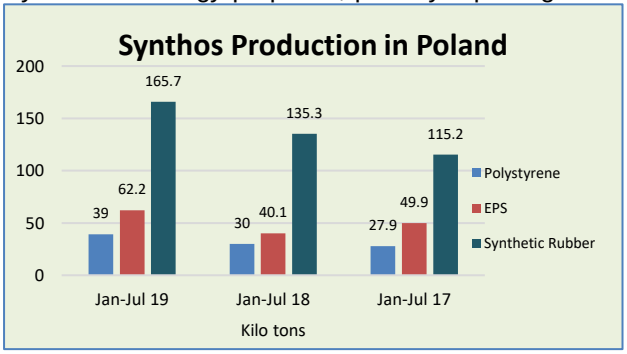
In Serbia after efforts to privatise MSK at Kikinda on two occasions, the government is not planning a third call for privatisation. Namely, the state has already announced two tenders for finding a strategic partner for MSK Kikinda, but there were no interested buyers. MSK is no longer a burden on the state.

Czech Methanol Imports (unit-kilo tons)		
Country	***Jan-Jul 19***	***Jan-Jul 18***
Germany	8.3	16.5
Norway	6.1	7.3
Russia	27.5	21.3
Slovakia	0.0	1.1
Poland	2.8	1.3
Others	1.6	0.4
Total	46.2	47.8

Methanol imports into the Czech Republic totalled 46,200 tons in the first seven months in 2019 against 47,800 tons in the same period in 2018. Russia supplied 27,500 tons of methanol to the Czech market in the first seven months for €8.3 million, whilst Germany supplied 8,296 tons for €2.901 million.

Synthos-PGNiG

PGNiG and Synthos have signed an LNG supply contract in Poland to date, which provides for delivery of 8,200 tons by the end of 2021. Gas will be used by Synthos for energy purposes, partially replacing coal. Synthos plans to build a CCGT cogeneration gas source at Oswiecim with an electrical capacity of approximately 100 MW.



In the first stage, transport is to take place by road tankers, the contract will require two deliveries a day. PGNiG wants to provide clients with approximately 20,000 tpa of LPG by 2021. Liquefied natural gas is to come from the LNG terminal in Świnoujście and from the PGNiG liquefaction installation in Odolanów and will go to the Synthos chemical plant at Oswiecim. LNG will replace coal at the Synthos plant in some boilers for energy production.

Polish Chemical Production (unit-kilo tons)		
Product	***Jan-Jul 19***	***Jan-Jul 18***
Caustic Soda Liquid	212.5	139.7
Caustic Soda Solid	37.7	66.2
Ethylene	311.0	261.0
Propylene	263.6	156.5
Butadiene	37.4	23.6
Toluene	7.6	7.0
Phenol	26.7	23.2
Caprolactam	97.7	84.6
Acetic Acid	4.0	8.5
Polyethylene	221.2	195.7
Polystyrene	39.0	32.1
EPS	62.2	36.0
PVC	169.0	128.3
Polypropylene	199.3	140.6
Synthetic Rubber	165.7	138.5
Ammonia (Gaseous)	1410.0	1362.0
Ammonia (Liquid)	58.9	69.3
Pesticides	33.7	27.6
Nitric Acid	1340.0	1194.0
Nitrogen Fertilisers	1126.0	1019.0
Phosphate Fertilisers	273.6	208.6
Potassium Fertilisers	253.1	201.1

Grupa Azoty, Jan-Jun 2019

Grupa Azoty increased its net profit in the first half of this year to zl 394.95 million (zl 270 million higher than in the same period in 2018) due mainly to low gas prices, helped by availability from the US. The company's sales revenues amounted to zl 6,102 billion in January to June 2019 against zl 4.877 billion. Operating profit amounted to zl 535.49 million versus zl 196.45 million in the same period last year. Grupa Azoty is heavily focused on investment into Polymery Police and separates this project from other capital expenditures.

Grupa Azoty Pulawy-urea contract

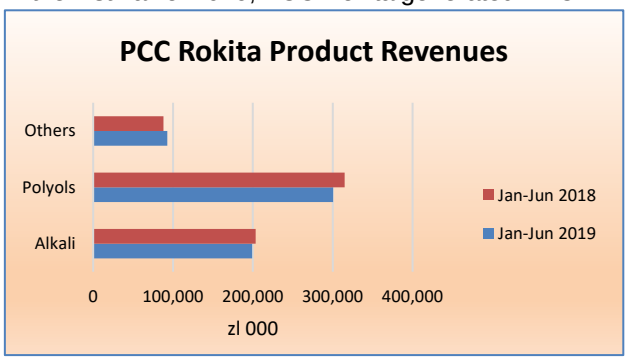
Grupa Azoty Zakłady Azotowe Puławy concluded a contract in August with Central European companies Kronospan Mielec, Kronospan KO, Diakol Strazske and Dukol Ostrava, for the sale of Pulrea urea from 1 July 2019 to 30 June 2023. Prices will be negotiated on a monthly basis, with the whole contract valued at zl 300 million. Pulrea is urea which can be used in the production of plastics and as an auxiliary agent for general chemical applications.

Anwil-hydrogen chloride and nitric acid projects

Anwil has concluded a contract for a new nitric acid plant with ThyssenKrupp Industrial Solutions, with a capacity of 1,300 tons per day. The contract includes the design, delivery and construction of a turnkey system by mid-2022 at Wloclawek. The completion of the investment is planned for mid-2022. In total, three new production installations for the fertiliser line will be created at Wloclawek, including an installation for the production of nitric acid, ammonium nitrate solution (so-called neutralisation) and installation for the production of fertilisers using the granulation method drum.

PCC Rokita, Jan-Jun 2019

In the first half of 2019, PCC Rokita generated zl 734.4 million in sales revenues compared to zl 721.2 million in the same period in 2018 and recorded a lower net profit of zl 41.8 million compared to zl 108.1 million. The EBITDA dropped 15% in the first half year to zl 131.7 million. The chlorine and alkali division reduced its EBITDA by 11% zl 101.5 million despite higher volume sales.



Polyol sales fell in the first half year for PCC Rokita from zl 315 million in January to June 2018 to zl 301 million, whilst the segment faced weak margins for propylene oxide and falling prices for polyols. Further falls have been recorded in TDI prices which help polyurethane mattresses to compete effectively with mattresses produced using alternative technologies. Polyols for PCC Rokita were also affected by sales in the automotive industry and competition from Sadara complex in Saudi Arabia to markets traditionally served by European producers such as Russia, Turkey and Africa.

Subsidiary PCC Exol's net profit rose by zl 1 million in the first half of 2019 to zl 9.5 million, whilst the gross margin on sales reached 13.8%. PCC Exol is expanding its product range intended for industrial applications, including the paint and varnish market and extinguishing products. PCC Exol has also begun research on the development of surfactants with a special polymeric structure, in addition to carrying out subsequent stages of the investment at the ethoxylate plant at Brzeg Dolny.

Chimcomplex Product Group Revenues (€ million)		
Product	***Jan-Jun 19***	***Jan-Jun 18***
Polyols	73.2	0.0
Chlor-alkali	50.7	30.1
Oxo alcohols	19.0	0.0

Chimcomplex-Oltchim, Jan-Jun 2019

After the acquisition of assets from Oltchim at the end of 2018, the revenues of Chimcomplex rose 4.5 times in the first half of 2019 to 709.1 million lei (€149.9 million), while operating expenses rose 4.8 times to 648.59 million lei (€137.1 million). Thus, the operating result for Chimcomplex amounted to 60.51 million lei (€12.8 million) which was up 2.6 times on the same period in 2018. Chimcomplex borrowed €164 million from Credit Suisse and Russian bank VTB to pay for Oltchim's core assets.

Czech Petrochemical Exports (unit-kilo tons)		
Product	***Jan-Jul 19***	***Jan-Jul 18***
Ethylene	57.2	52.3
Propylene	6.0	9.4
Butadiene	3.0	0.2
Benzene	31.9	23.5
Toluene	6.8	9.6
Ethylbenzene	90.9	83.0

Czech petrochemical exports, Jan-Jul 2019

Czech ethylene exports amounted to 57,200 tons in the first seven months in 2019 against 52,300 tons in the same period in 2018. Most of the ethylene is shipped from Litvinov to Germany by pipeline. Exports of ethylbenzene, produced at Kralupy, amounted to 90,900 tons in January to July versus 83,000 tons. Propylene exports amounted to 6,000 tons in January to July 2019 against 9,400 tons in 2018.

Czech MDI Imports (unit-kilo tons)		
Country	***Jan-Jul 19***	***Jan-Jul 18***
China	0.9	1.7
Belgium	4.7	3.7
Germany	7.2	4.5
Italy	0.2	0.1
Hungary	2.5	4.3
Netherlands	0.6	0.6
Others	0.4	2.2
Total	16.5	17.2

Czech chemical trade, Jan-Jul 2019

TDI imports amounted to 4,869 tons in the first seven months in 2019 at a cost of €13.273 million, down from 8,700 tons in the same period in 2018 at a total cost of €23.991 million. The largest source of supply of TDI in the first seven months this year was Germany with 2,621 tons at a cost of €9.255 million. MDI imports amounted to 16,500 tons in the first seven months in 2019 against 17,200 tons in the same period in 2018, whilst costs of imports dropped from €37.897 million to €26.808 million. Regarding DINP plasticizers, imports totalled 7,173 tons in January to July this year at a total cost of €8.813 million against 6,560 tons in January to July 2018 for a total cost of €8,019. DINP plasticizer exports totalled 24,318 tons in the first seven months in 2019 at a total cost of €29.274 million against 23,194 tons in the same period last year for €27.0 million.

RUSSIA

Russian Chemical Production (unit-kilo tons)		
Product	***Jan-Jul 19***	***Jan-Jul 18***
Caustic Soda	742.9	736.5
Soda Ash	1,980.0	2,000.0
Ethylene	1,799.2	1,755.6
Propylene	1,381.9	1,155.6
Benzene	846.4	842.8
Xylenes	317.4	357.8
Styrene	426.1	425.6
Phenol	130.4	120.7
Ammonia	10,700.0	10,600.0
Nitrogen Fertilisers	6,764.0	6,343.0
Phosphate Fertilisers	2,456.0	2,337.0
Potash Fertilisers	4,697.0	4,924.0
Plastics in Bulk	4,934.0	4,778.0
Polyethylene	1,326.0	1,306.0
Polystyrene	316.1	313.0
PVC	589.4	582.4
Polypropylene	924.1	883.0
Polyamide	94.0	101.9
Synthetic Rubber	881.0	974.0

Russian chemical production, Jan-Jul 2019

Russia's output of chemical products increased by 2.8% in the first seven months in 2019 against the same period last year. Ethylene production increased by 4% to 1.799 million tons, whilst Russian propylene production rose from 1.156 million tons to 1.382 million tons.

Benzene production amounted to 846,400 tons in the first seven months of 2019 against 842,800 tons, whilst Russian xylene production totalled 317,400 tons in January to July 2019 against 357,800 tons in the same period in 2018. Production of caustic soda rose to 742,900 tons in the first seven months versus 736,500 tons a year earlier. Russian polymer production in amounted to 4.934 million tons in the first seven months in 2019, up 0.6%, although larger rises are anticipated in the fourth quarter after the start-up of the ZapSibNeftekhim complex. The production of plastic products from polymers showed an increase of 2.5% in the first seven months in 2019.

Russian chemical & polymer trade, Jan-Jun 2019

Russia exported 26.257 million tons of chemical industry products, including plastics and rubber, in the first half of 2019 for a total value of $12.2 billion. Imports totalled 7.719 million tons for a value of $21.3 billion. Fertilisers accounted for 60% of export volumes by weight, with inorganic and organic chemicals with 15% and 12% respectively. By value, exports of fertilisers accounted for 33% of total chemical product revenues in the first half of 2019, whilst organic chemicals accounted for 15% of the sector and inorganic chemicals 14%.

Russian Chemical Trade Jan-Jun 2019 (unit-kilo tons)				
Category Group	***Exports ktons***	***Exports $ mil***	***Imports ktons***	**Imports $ mil**
Inorganic	4025	1810	2891	1880
Organic	3239	1840	816	2170
Pharmaceuticals	18.1	357	76.6	5270
Fertilisers	15709	4050	154	82.4
Cosmetics	68.7	351	163	1540
Soap and detergents	219	218	272	705
Paints & lacquers	145	166	285	890
Protein substances, enzymes	12	22.4	119	321
Explosives	44.6	35.6	2.83	11.6
Photo chemicals	0.337	5.7	8.8	136
Other Chemicals	409	487	623	1790
Plastics	1660	1380	1809	4504
Syn & Nat Rubber	707	1490	499	2000
Total	26256.74	12212.7	7719.23	21300

Regarding imports, inorganic chemicals accounted for 37% of inward trade by weight but this only accounted for 8% of value. Imports of plastics comprised 23% of shipments and 21% of value whilst the largest value category came from pharmaceuticals accounting for 24% of the sector although only accounting for 1% in weight.

Russian petrochemical projects

Russian Petrochemical Exports (unit-kilo tons)		
Product	***Jan-Jun 19***	***Jan-Jun 18***
Propylene	37.1	40.6
Orthoxylene	45.9	53.5
Paraxylene	70.9	73.2
Styrene	65.4	72.5

ZapSibNeftekhim-commissioning underway

SIBUR completed commissioning at the ZapSibNeftekhim pyrolysis plant at Tobolsk and the equipment is ready for launch. The first granules of polyethylene and polypropylene have already been obtained whilst the ethylene cracker is expected to start in the fourth quarter in 2019. Full

commissioning of the complex is scheduled for the third and fourth quarters of 2019 and production to start before the end of the year. A large part of the production will be directed to the Chinese market, facilitated primarily by an agreement signed with the Kremlin with Sinopec.

ZapSibneftekhim capacities

Linde has acted as the licensor and technology developer for the Tobolsk complex, comprising pyrolysis capacity is 1.5 million tpa of ethylene and 0.5 million tpa of propylene. The capacity of ZapSibNeftekhim for the production of polypropylene is 500,000 tpa using a license provided by LyondellBasell. The technology used will enable the production of all types of polypropylene, including random and block copolymers that are scarce in the domestic market, for all segments of consumption. The capacity of the polyethylene production complex is 1.5 million tpa, using INEOS technology, which will effectively double the capacity of the PE market in Russia. Polymerisation plants will be launched to produce modern grades of HDPE and LLDPE. A separate extrusion line is designed for the production of the PE100 pipe brand in demand on the Russian market.

Nine pyrolysis furnaces include eight which will be operational, and one will be held in reserve. The uniqueness of furnaces number 3, 4, 5 and 6 lies in the fact that they can process several types of raw materials both individually and jointly.

The furnace fuel will comprise a mixture of methane and hydrogen released during the pyrolysis process, which will make the equipment work waste-free. Production includes hydrocarbons (C4), from which butadiene and MTBE will be produced at ZapSibNeftekhim.

The design of the apparatus allows SIBUR to increase the useful life of the pyrolysis furnaces by undertaking maintenance cleaning once every 2–4 years, while the existing pyrolysis plants (i.e., Tomsk, Kstovo) must be stopped for cleaning much more frequently.

Amur Gas Processing Plant-project update

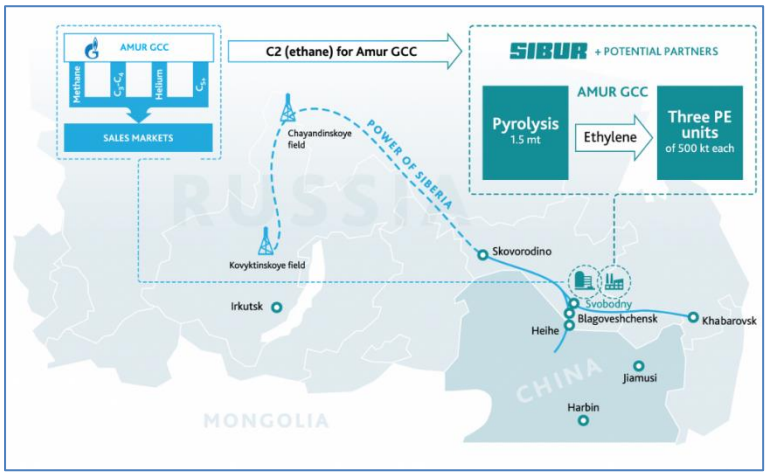
According to Gazprom the mechanical readiness of the Amur Gas Processing Plant (GPP) at Svobodny was close to 50% of completion as of mid-September. The company aims to launch the first two lines in in April 2021, and from 1 January 2025, the GPP is expected to reach its design capacity. The launch of the GPP will allow production of up to 2.6 million tpa of ethane, 1.6 million tpa of LPGs, and up to 60 million cubic metres of helium per annum and up to 38 billion cubic metres of marketable gas.

Deliveries of equipment have used several routes, mainly reaching the site through the terminal established on the Zeya River. Recent deliveries that started from the Tianjin port have been shipped to the Russian port of De-Kastri on the Pacific coast, from where the equipment will be delivered via Blagoveshchensk to Svobodny along the river route. The first propane recovery column has been mounted at the Amur GPP site, to be followed by three others which will operate as part of a gas fractionation unit. This will separate wide fraction of light hydrocarbons into propane, butane, and pentane-hexane fractions.

Regarding feedstocks Gazprom connected the Chayanda oil and gas condensate field to the Power of Siberia gas pipeline, which supplies the for the Amur GPP, meaning that a system for connecting production to the gas transportation infrastructure is completely ready. Gazprom expects to start delivering gas from the Kovykta field closer to 2023. The Power of Siberia pipeline comprises around 4,000 km in length, including eight compressor stations.

Amur Gas Chemical Complex, LPG feedstocks in addtiion to ethane?

SIBUR reiterates its intention to reach a decision on the configuration of the Amur Gas Chemical Complex project any time soon but is still waiting for a government decision on the introduction of a negative excise tax on LPG. This could impact significantly on cost assessments, but at the same time Gazprom needs a decision from SIBUR as it will affect investment plans for the gas processing plant. As a result, SIBUR has to decide soon on whether to proceed.



SIBUR is preparing two basic projects. One involves launching pyrolysis on ethane followed by production of polyethylene, the second includes additional opportunities for processing LPGs from the Amur Gas Processing Plant. If LPG processing appears in the project besides ethane, SIBUR will have the opportunity to launch polypropylene production on additional volumes of raw materials. SIBUR could increase olefin capacity from LPG usage.

Gazprom-Baltic Project Outline	
Gas processing	45 billion cubic metres per annum
Methane	19 billion cubic metres per annum
LNG	13 million tpa
LPG	2 million tpa
Ethane	4 million tpa
Ethylene	3 million tpa
Polymers	3 million tpa

Gazprom-Baltic Gas Chemical

Gazprom has asked the government to support its integrated Baltic gas processing and liquefaction project. Gazprom proposes to finance the first phase of the project through a contribution to the capital of VEB, but then requires direct government finance.

The project worth about 750 billion roubles provides for the construction of a gas processing plant, an LNG plant and a gas chemical complex. The aim is to process ethane-containing gas from the Achimov and Valanginian deposits of the Nadym-Pur-Tazav region with the subsequent production of 13 million tpa of LNG, up to 4 million tpa of ethane and more than 2.2 million tpa of LPGs. The launch of the first stage is scheduled for 2023, the second by the end of 2024. The project operator is a special-purpose company RusHimAlliance, created on a parity basis by Gazprom and RusGasDobycha.

At the next stage of the project, it is planned to build a gas-chemical complex. RusGasDobycha will independently invest in its creation (a special-purpose company Baltic Chemical Complex). The gas-chemical complex is being considered at a capacity of 3 million tpa of polymers. Russian bank VEB has agreed to allocate 111 billion roubles ($1.668 billion) for the Gazprom mega-project in the Baltic. The cost of building the entire gas-chemical cluster will exceed 2 trillion roubles ($30 billion). VEB's Supervisory Board approved participation in financing the construction of a gas processing complex at Ust-Luga.

Irkutsk Oil Company (INK) & Toyo sign agreement on polyethylene project

Irkutsk Oil Company (INK) and Toyo Engineering signed a new agreement in early September on the construction management of the Irkutsk Polymer Plant. This agreement covers the provision of construction management services between Irkutsk Polymer Plant (a 100% subsidiary of the Irkutsk Oil Company) and an affiliate company Toyo Engineering Corporation. Under the new agreement, Toyo Engineering Corporation, an affiliate, will provide coordination, planning and control services for the construction of a polymer plant at Ust-Kut in the Irkutsk Region. INK is planning to put the polymer plant into operation in 2023.

Russian Ethylene Production (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Angarsk Polymer Plant	107.2	116.0
Kazanorgsintez	385.4	356.9
Stavrolen	199.0	190.0
Nizhnekamskneftekhim	382.2	373.6
Novokuibyshevsk Petrochemical	38.9	28.8
Gazprom n Salavat	189.9	222.2
SIBUR-Kstovo	228.8	209.0
SIBUR-Khimprom	30.2	31.7
Tomskneftekhim	162.5	156.6
Ufaorgsintez	75.1	71.1
Total	1799.2	1755.6

Russian petrochemical markets

Russian ethylene production, Jan-Jul 2019

Russian ethylene production amounted to 1.799 million tons in the first seven months in 2019 versus 1.766 million tons in the same period in 2018. Kazanorgsintez produced 385,400 tons in January

to July 2019 against 356,900 tons in the same period last year whilst Nizhnekamskneftekhim produced 382,100 tons against 373,600 tons. Other important producers included SIBUR-Kstovo which produced 228,800 tons versus 209,000 tons and Gazprom neftekhim Salavat which produced 189,900 tons against 222,200 tons.

On 15 September repair work on pyrolysis units began at Nizhnekamskneftekhim expected to last until 6 October. During this period, the enterprise will reduce the production of ethylene, propylene, benzene, C4s and some processed products.

Russian Propylene Production (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Angarsk Polymer Plant	59.3	64.3
Kazanorgsintez	29.2	20.1
Lukoil-NNOS	174.1	145.0
Stavrolen	80.2	66.4
Nizhnekamskneftekhim	192.9	163.6
Novokuibyshevsk Petrochemical	25.0	21.0
Omsk Kaucuk	26.5	21.5
Polyom	110.7	98.8
Gazprom n Salavat	84.7	82.9
SIBUR Kstovo	98.8	75.9
SIBUR-Khimprom	33.5	32.4
Tomskneftekhim	86.6	75.9
SIBUR Tobolsk	267.8	199.0
Ufaorgsintez	112.6	89.0
Total	1381.9	1155.6

Regarding feedstocks, Kazanorgsintez continues to purchase other hydrocarbons to support ethane-based olefin production. Kazanorgsintez expects to secure 172,000 tons of ethane from the Minnibayevo Gas Processing Plant in Tatarstan in 2019 to support ethane supplies from Orenburg, but still needs to purchase other feedstocks and ethylene monomer to maintain polyethylene production levels. Volumes of 11,085 tons and 11,875 tons of propane were purchased by Kazanorgsintez in June and July respectively, all of which was supplied by Uralorgsintez. In addition, Kazanorgsintez purchased 31,155 tons of propane-butane fractions for delivery in September 2019.

Russian propylene production & sales, Jan-Jul 2019

Russian propylene production amounted to 1,382 million tons in the first seven months in 2019 against 1.156 million tons in the same period last year. SIBUR-Tobolsk increased production to 267,800 tons against 199,000 tons in the first seven months in 2018. Nizhnekamskneftekhim produced 192,900 tons against 163,600 tons whilst Lukoil-NNOS produced 174,100 tons against 145,000 tons.

Russian Propylene Domestic Sales (unit-kilo tons)		
Company	***Jan-Jul 19***	***Jan-Jul 18***
Angarsk Polymer Plant	42.6	44.4
SIBUR-Kstovo	83.3	70.4
Akrilat	5.5	5.0
LUKoil-NNOS	132.9	130.3
Gazprom neftekhim Salavat	4.6	3.1
SIBUR Tobolsk	0.1	0.3
Total	269.0	255.0

Russian sales of propylene on the domestic merchant market amounted to 269,000 tons in the first seven months in 2019 against 255,000 tons in the same period in 2018. Lukoil-NNOS at Kstovo shipped 132.900 tons to the domestic market in the first seven months against 130,300 tons in 2018, SIBUR-Kstovo shipped 83,300 tons to the merchant market against 70,400 tons and Angarsk Polymer Plant reduced shipments from 44,400 tons to 42,600 tons.

Major Russian Propylene Buyers (unit-kilo tons)		
Consumer	***Jan-Jul 19***	***Jan-Jul 18***
Saratovorgsintez	115.0	111.2
SIBUR-Khimprom	34.9	39.9
Omsk-Kaucuk	13.3	19.1
SIBUR Tobolsk	65.6	38.8
Moscow Refinery	11.3	5.1

The largest merchant consumer of propylene in Russia is acrylonitrile producer Saratovorgsintez at Saratov which purchased 115,000 tons in the first seven months against 111,200 tons in the same period in 2018. The second largest merchant consumer is SIBUR Tobolsk which purchased 65,600 tons in January to July 2019 versus 38,800 tons in the same period in 2018.

Russian Propylene Exports (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Lukoil-NNOS	30.1	47.7
SIBUR-Kstovo	6.1	9.6
Stavrolen	11.8	10.4
Total	48.0	67.6

Russian propylene exports amounted to 48,000 tons in the first seven months versus 67,000 tons in the same period in 2018. Exports were divided between the plants in the Nizhny Novgorod region including Lukoil-NNOS

and SIBUR-Kstovo, in addition to Stavrolen in the Stavropol Kray in southern Russia. The main destinations for Russian propylene exports included Belarus and Poland, although in recent months volumes to Poland have declined due to competition from Karpatneftekhim in Ukraine.

Russian styrene production & sales, Jan-Jul 2019

Russia produced 426,100 tons of styrene in the first seven months in 2019 versus 426,200 tons in the same period in 2018. Gazprom neftekhim Salavat increased styrene production to 116,900 tons against 113,800 tons, followed by SIBUR-Khimprom at Perm where production produced 78,200 tons against 78,300 tons.

Russian Styrene Exports (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Angarsk Polymer Plant	6.8	4.5
Plastik Uzlovaya	0.2	3.2
Gazprom neftekhim Salavat	63.7	52.6
Nizhnekamskneftekhim	4.6	0.0
SIBUR-Khimprom	1.2	3.8
Total	76.4	64.1

Styrene exports from Russia increased to 76,400 tons in the first seven months in 2019 against 64,100 tons in the same period in 2018. Gazprom neftekhim Salavat shipped 63,700 tons in the first seven months against 52,600 tons, whilst Angarsk Polymer Plant shipped 6,800 tons this year against 4,500 tons. The main destination for styrene exported from Salavat is Finland, followed by Norway and Turkey. The increase in production at Salavat in the first five months this year enabled a rise in both exports and domestic sales.

Russian Styrene Domestic Sales (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Angarsk Polymer Plant	12.1	5.2
Plastik	0.7	9.0
Gazprom n Salavat	26.4	20.9
SIBUR-Khimprom	23.5	15.7
Nizhnekamskneftekhim	2.1	3.8
Total	64.7	54.5

Styrene sales on the Russian domestic merchant market totalled 64,700 tons in January to July 2019 against 54,500 tons in the same period in 2018, with Gazprom neftekhim Salavat increasing shipments from 20,900 tons to 26,400 tons and SIBUR-Khimprom increasing shipments from 15,700 tons to 23,500 tons. SIBUR-Khimprom uses styrene for the production of expandable polystyrene. Main Russian consumers for merchant styrene include rubber producers such as Voronezhsintezkaucuk.

Bulk Polymers

Russian HDPE production Jan-Jul 2019

Russian HDPE production amounted to 564,500 tons in the first seven months in 2019, against 413,900 tons in the same period in 2018. LLDPE production increased by 23% in the first seven months to 140,300 tons, most of which was produced by Nizhnekamskneftekhim.

Russian HDPE Production (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Kazanorgsintez	318.4	318.4
Stavrolen	182.5	172.9
Nizhnekamskneftekhim	0.0	17.7
Gazprom n Salavat	61.5	69.3
Total	562.4	578.3

Kazanorgsintez increased HDPE production by 2.4% in January to July 2019 to 318,400 tons, whilst Stavrolen increased by 6% to 182,500 tons. Gazprom neftekhim Salavat produced 61,500 tons of HDPE in the first seven months 2019 which is 11% more than the same period in 2018. Russian HDPE production is expected to rise significantly after the start-up of the ZapSibNeftekhim complex at Tobolsk in mid-2019.

Stavrolen stopped production of vinyl acetate monomer (VAM) in August for unscheduled repairs, and the plant is not expected to restart until October. The production capacity of vinyl acetate monomer at Budyennovsk is 60,000 tpa. From 1 September Stavrolen stopped the production of HDPE and polypropylene for scheduled maintenance, lasting for 45 days. An overhaul was not carried out in 2018. Gazprom Neftekhim Salavat resumed production of HDPE in August after a scheduled repair. According to the company's customers, HDPE production capacities were restarted by 8 August which lasted for around a week. Polyethylene production was halted in early July. Kazanorgsintez will hold a sequential shutdown of capacities from 14 September to 21 October.

Russian LDPE production, Jan-Jun 2019

Russian LDPE production amounted to 380,800 tons in the first half of 2019, which is 1% lower than in the first half of 2018. Angarsk Polymer Plant resumed LDPE production from its 75,000 tpa plant on 12 August after scheduled turnaround. The scheduled shutdown started on 22 June and was initially planned to last for one month. Tomskneftekhim and Kazanorgsintez both stopped LDPE production for maintenance in September. Tomskneftekhim stopped production for scheduled preventive repairs on 5 September, both for LDPE and polypropylene. Downtime was planned for two weeks. Ufaorgsintez is scheduled to close from 17 September.

In August Kazanorgsintez held public hearings on the materials of the Environmental Impact Assessment (EIA) of the reactor V modernisation project with equipping it with a recovery system at the plant for the production and processing of HDPE.

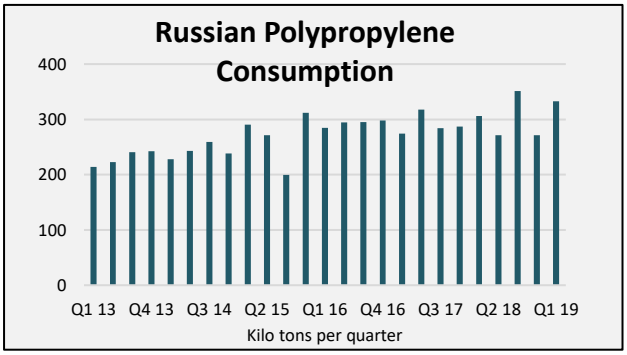
Accordingly, the implementation of the project will allow returning 8,760 tons of hydrocarbon gases to the process, rather than sending them to the flare. The modernisation of one of the three reactors of the plant for the production and processing of HDPE, reactor B, is planned for the period from 2019 to 2022.

Russian polypropylene production & trade, Jan-Jul 2019

Polypropylene production at Russian plants increased by 3.1% in the first seven months to 854,700 tons. SIBUR-Tobolsk increased production by 5% to 287,000 tons, whilst Polyom at Omsk reduced the production of propylene polymer by 1% to 127,100 tons. Stavrolen reduced polypropylene production to 64,300 tons against 67,500 tons in the first seven months in 2018 and Nizhnekamskneftekhim produced 124,700 tons of polypropylene, against 123,600 tons. Tomskneftekhim produced 86,800 tons of polypropylene, an increase of 4%. Ufaorgsintez increased by 1% to 78,400 tons and NPP Neftekhimya increased by 7% to 83,200 tons.

Russian Polypropylene Production (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Ufaorgsintez	78.4	77.3
Stavrolen	64.3	67.5
Moscow NPZ	83.3	77.9
Nizhnekamskneftekhim	124.7	123.6
Polyom	127.1	128.6
Tomskneftekhim	86.8	83.6
SIBUR Tobolsk	287.0	273.6
Total	851.6	832.1

In September, five Russian polypropylene producers stopped their capacities at the same time for scheduled preventive repairs. In most cases, planned downtime will be short, the only exception is Stavrolen which intends to stop production for more than 40 days. Stavrolen stopped from 1 September and Tomskneftekhim from 5 September. Ufaorgsintez intends to stop the production of polypropylene for routine maintenance from 12 September, downtime is planned for 12 days. In the second half of September, Polyom is scheduled for a two-week shutdown and Nizhnekamskneftekhim for one week.



Polypropylene consumption is rising faster than other main bulk polymers, with quarterly volumes continually exceeding 300,000 tons, and the second quarter this achieving 358,000 tons. Despite higher production, imports continue to play a role. The start-up of ZapSibNeftekhim is likely to impact heavily on imports of polypropylene whilst at the same time increasing exports.

Russian PVC Production (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Bashkir Soda	148.0	151.0
Kaustik	43.2	54.5
RusVinyl	196.1	183.6
Sayanskkhimplast	166.3	162.8
Total	553.6	551.9

Russian PVC production & trade, Jan-Jul 2019

Russian PVC production increased by 6% in January-July 2019 to 553,600 tons compared to 551,900 tons. RusVinyl produced 196.200 tons, which is 7% more than in 2018, Sayanskkhimplast produced 166,300 tons against 162,800 tons and Bashkir Soda company produced 148,000 tons against 151,000 tons for the same period in 2018. Kaustik at Volgograd reduced production to 43,200 tons against 54,500 tons in January to July 2018. Despite scheduled maintenance this year, Russian PVC producers have still managed to increase exports to 122,100 tons in the first seven months of 2019, up from 75,500 tons in

the same period in 2018. Indian buyers accounted for 73,400 tons in the first seven months. Overall imports of PVC into Russia totalled about 26,900 tons in January to July 2019 versus 12,700 tons last year.

Paraxylene-PTA-PET

Russian Paraxylene Domestic Sales (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Gazprom Neft	0.0	33.7
Ufaneftekhim	61.5	69.6
Kinef, Kirishi	0.0	0.0
Total	61.5	103.3

Russian paraxylene domestic sales, Jan-Jul 2019

Due to reduced PTA production at Blagoveshchensk paraxylene sales on the Russian domestic market dropped in the first seven months from 103,300 tons to 61,500 tons in the same period in 2019.

Whilst Ufaneftekhim reduced shipments to Polief from 69,600 tons in the first seven months in 2018 to 61,500 tons in 2019, Gazprom Neft did not ship any volumes in the first seven months, Polief's modernisation and expansion of PTA facilities at Blagoveshchensk has reduced the intake of paraxylene requirements at least until the second half of the year. SIBUR's paraxylene purchases from Russian refineries amounted to 176,386 tons in 2018 against 177,061 tons in 2017.

Russian Paraxylene Exports (unit-kilo tons)		
Producer	***Jan-Jun 19***	***Jan-Jun 18***
Gazprom Neft	37.8	61.0
Ufaneftekhim	19.0	35.8
Kirishinefteorgsintez	8.9	19.5
Total	65.7	116.3

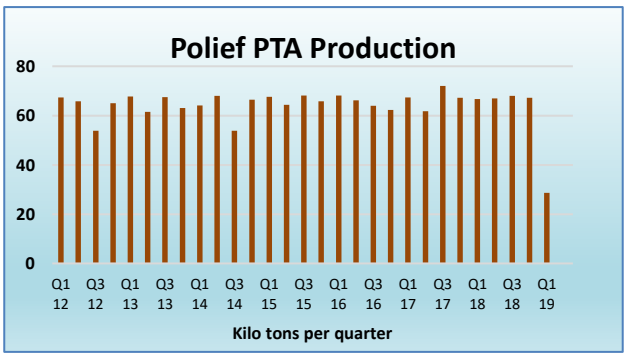
Following the process of modernisation Polief will increase the consumption of paraxylene by roughly 4,200 tons per month in the fourth quarter, to around 19,500 tons per month or in total to 230-235,000 tpa). PTA capacity is being increased in total by 78,000 tpa to 350,000 tpa. The modernisation and expansion at Blagoveshchensk started on 6 February 2019 and the process was completed in June. During the third quarter, the installation has been gradually revived and is soon expected to reach its design capacity.

Russian PTA imports, Jan-Jun 2019

PTA imports into Russia totalled 220,561 tons in the first six months in 2019 against 117,653 tons in the same period in 2018. China increased shipments to Russia to 164,700 tons in January to June 2019 against 61,401 tons in the same period last year whilst South Korea reduced deliveries from 39,870 tons to 36,950 tons. Thailand supplied 2,970 tons of PTA to Russia in January-June 2019 versus 10,001 tons in the same period in 2018, although most of the shipments from this year were delivered in the first quarter.

Russian PTA Imports (unit-kilo tons)		
Country	***Jan-Jun 19***	***Jan-Jun 18***
Belgium	14.0	1.6
India	1.0	4.8
China	164.7	61.4
South Korea	37.0	39.9
Poland	1.0	0.0
Thailand	3.0	10.0
Total	220	117

The cost of imported PTA in the first six months in 2019 amounted to $195 million against $90.9 million in the same period last year. Alko-Naphtha in Kaliningrad accounted for 67.4% of imports ($132 million in value) in January to June 2019 against 71.4% in 2018.



Completed repairs on PTA plant at Polief

SIBUR has completed a project to expand the capacity of Russia's only production of PTA from 272,000 tpa to 350,000 tpa. Investments exceeded 6 billion roubles or $91 million. The modernisation of the PTA production does not represent the largest project for SIBUR, but certainly one of the most difficult, since it is not about creating a new production, but about cardinal updating and expansion of existing capacities. In the first quarter this year the Polief plant produced 28,000 tons of PTA and nothing in

the second quarter. The Blagoveshchensk plant produced 269,000 tons of PTA in 2018, which corresponds to the maximum capacity of the facilities operating that year.

The PTA expansion will ensure full load of the new installation for the production of eco-friendly plasticizer DOTP, which SIBUR launched in the spring of this year in Perm. The expanded PTA plant will produce 100,000 tpa of PTA more than SIBUR's two PET plants need. Therefore, part of the raw materials (about 40,000 tpa) will be directed to the Perm production of DOTP plasticizer. SIBUR plans to sell the remaining 60,000 tpa of PTA to the local market or supply, for example, to Belarus. As part of the project, which started in 2017, over 150 units of the main technological equipment, as well as most of the auxiliary equipment, were updated. The volume of consumption of PTA in the Russian market is estimated at 500,000 tpa.

Ekopet at Kaliningrad (formerly Alko-Naphtha)

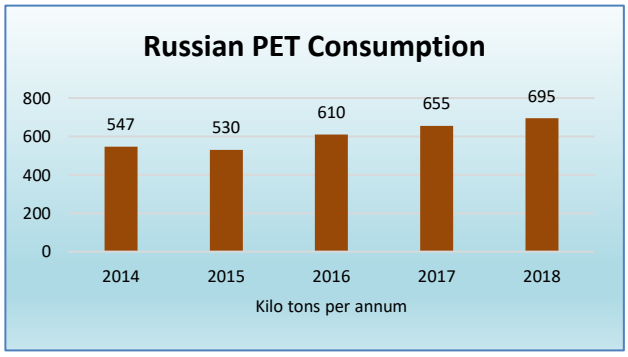
Ekopet at Kaliningrad (formerly Alko-Naphtha) plans to stop PET production for extended maintenance in January 2020. At present the plant is running at 100% of capacity, and in August this year started supplying PET to North America. Alka-Naphtha was officially renamed Ekopet in 2017 although the former name is still used occasionally. The capacity of the PET plant at Kaliningrad is 220,000 tpa, starting production in 2011, and the plant is the major buyer of imported PTA into Russia.

Russian PTA Imports (unit-kilo tons)		
Location	***Jan-Jun 19***	***Jan-Jun 18***
Kaliningrad	147.4	84.2
Moscow	33.8	33.6
Others	39.2	0.0
Total	220.4	117.8
Russian PTA Imports ($ million)		
Location	**Jan-Jun 19**	**Jan-Jun 18**
Kaliningrad	134.2	64.8
Moscow	30.7	26.1
Others	30.4	0.0
Total	195.3	90.9

Senezh in the Moscow area plans to stop the production of PET for scheduled repairs in October which will take about a month. The exact dates of the beginning and completion of the repair are not reported. Senezh is part of the Europlast group and has a capacity of 100,000 tpa.

Russian PET projects & PET consumption

Following the collapse of the Ivanovo project at the end of 2018 and further delays encountered in the SafPet (Nizhnekamsk) and Etana PET/PTA projects in Kabardino-Balkaria, the only PET project that appears ready for completion in the near term future is the Titan plant at Pskov where capacity is being designed to produce 170,000 tpa.



The SafPet project appears to be waiting for the completion of the aromatics complex at Nizhnekamsk before any possibility of the PET project going ahead, not expected prior to 2021-2022, whilst the Etana investments have been delayed over finance and payment to the Chinese engineering company responsible for construction SIBUR has increased PTA capacity to 350,000 tpa but has left PET capacity unchanged at 272,000 tpa

Whilst no new PET capacity has been added consumption has risen in the past few years adding pressure on imports. In 2018 consumption rose to 695,000 tons whilst rising 12% in the first seven months in 2019 to 428,790 tons. Deliveries of imported PET to the Russian market totalled 117,840 tons, up 19% against 2018. At the same time exports have dropped by around 50% to 30,000 tons in January to July 2019.

Aromatics

Russian benzene production-sales, Jan-Jul 2019

Russian benzene production totalled 781,400 tons in January to July 2019, of which the largest producer was Nizhnekamskneftekhim producing 170,000 tons versus 136,100 tons in the same period in 2018. At the end of last year, Nizhnekamskneftekhim increased the production capacity of benzene to 265,000 tpa.

Russian Benzene Production (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Rosneft	74.8	89.0
Gazprom Neft	46.6	63.0
Lukoil	59.3	70.8
Magnitogorsk MK	30.3	32.9
Nizhnekamskneftekhim	170.0	136.1
Novolipetsk MK	4.7	4.6
Gazprom Neftekhim Salavat	101.7	101.5
Kirishinefteorgsintez	48.3	38.7
Slavneft	30.8	42.6
Severstal	23.1	21.2
Bashneft	47.1	55.4
Ural Steel	5.9	5.1
Uralorgsintez	48.5	52.7
Zapsib	44.9	44.3
SIBUR	45.4	45.4
Total	781.4	803.2

Rosneft's three plants at Angarsk, Novokuibyshevsk and Ryazan produced a combined total of 74,800 tons against 89,700 tons. Gazprom Neft at Omsk reduced benzene production from 63,000 tons to 46,600 tons.

The Omsk refinery stopped the aromatics production complex for repairs in the first half of September, lasting for 40 days. Supply of benzene is expected to be tight whilst scheduled maintenance is undertaken at several plants. At the Stavrolen plant benzene production was stopped on 19 August for scheduled repairs. The cessation of production occurred as part of the scheduled repair work on the pyrolysis unit from 1 September to 15 October. The downtime of the cracker and benzene plant will comprise 45-55 days.

Benzene sales on the Russian domestic merchant market amounted to 496,300 tons in the first seven months in 2019 against 513,300 tons in January to July 2018. Kuibyshevazot remains the largest merchant buyer, purchasing 116,400 tons in the first seven months in 2019 against 123,200 tons in the same period last year. Azot at Kemerovo bought 73,500 tons in the first seven months versus 80,300 tons in 2018, whilst Shchekinoazot purchased 43,100 tons against 42,800 tons. For the production of cumene Kazanorgsintez purchased 40,900 tons in January to July 2019. At an online auction held on 26 August Kazanorgsintez purchased 6,069 tons of benzene for synthesis with delivery in September 2019.

Major Russian Benzene Consumers (unit-kilo tons)		
Consumer	***Jan-Jul 19***	***Jan-Jul 18***
Kuibyshevazot	116.4	123.2
Azot Kemerovo	73.5	80.3
Shchekinoazot	43.1	42.8
Kazanorgsintez	40.5	40.9
Uralorgsintez	40.2	32.9
Export	32.9	37.8
Total	496.3	513.3

Factors explaining the fall in lower merchant benzene purchases this year include lower production of caprolactam, combined with the loss of Nizhnekamskneftekhim to the market following an increase in the company's own production. Regarding other producers, Stavrolen at Budyennovsk has encountered technical difficulties in the past half year and whilst it was able to resume production of benzene in April 2019, the shortage of product on the domestic market still persists.

At the end of July, the Mozyr Oil Refinery (Belarus) shipped a batch of 1,500 tons of oil benzene to Shchekinoazot. Deliveries were made against a background of reduced purchases from Grodno Azot, the largest consumer in Belarus. The last time a batch of Belarusian benzene arrived in Russia was in April-June 2016, when Grodno Azot stopped for a scheduled repair. The Mozyr refinery then shipped a batch of 2.500 tons of benzene, and Naftan 3,500 tons. The only recipient again was Shchekinoazot. This year, Shchekinoazot also imported benzene from Kazakhstan, taking 591 tons in January-July 2019.

Benzene is imported mainly from Kazakhstan by Kuibyshevazot. For seven months of 2019, the company purchased 16,900 tons from the Atyrau refinery although deliveries over August and September have been affected by technical difficulties at the Kazakh plant.

Russian Caprolactam Production (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Kuibyshevazot	118.6	127.5
Shchekinoazot	35.3	32.3
SDS Azot	66.3	76.3
Total	220.2	236.1

The three Russian caprolactam producers remain the largest domestic merchant consumers of benzene, followed by styrene and phenol producers. Russian caprolactam production amounted to 220,200 tons in January to July 2019 against 236,100 tons in January to July 2018. Kuibyshevazot reduced production from 127,500 tons to 118,600 tons whilst SDS Azot at Kemerovo dropped to 66,300 tons from 76,300 tons.

Russian Orthoxylene Domestic Sales (unit-kilo tons)		
Company	***Jan-Jul 19***	***Jan-Jul 18***
Gazprom Neft	64.1	45.9
Ufaneftekhim	19.2	17.5
Kinef, Kirishi	7.2	21.0
Total	90.6	84.4

Russian orthoxylene market, Jan-Jul 2019

Russian xylene production totalled 317,400 tons in January to July 2019 against 313,400 tons in the same period in 2018. Gazprom Neft at the Omsk refinery reduced xylene production from 142,300 tons to 143,100 tons, Ufaneftekhim dropped slightly from 110,200 tons to 105,700 tons and Kirishinefteorgsintez produced 61,000 tons against 68,600 tons.

Orthoxylene sales on the Russian domestic market amounted to 90,554 tons in January to July 2019 against 84,400 tons in same period last year. Kamteks-Khimprom remains the largest buyer in Russia, purchasing 51,100 tons in the period January to July 2019 against 47,100 tons in the same period in 2018. Gazprom neftekhim Salavat increased purchases from 4,600 tons to 7,600 tons whilst other buyers were much smaller, taking volumes of several hundred tons. Some of the applications are fairly wide-ranging, including fuel and paints. The main outlet for orthoxylene thus remains phthalic anhydride where production in Russia totalled 59,500 tons in the first seven months in 2019 versus 61,000 tons in the same period last year.

Russian Orthoxylene Exports (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Gazprom Neft	2.9	15.1
Ufaneftekhim	11.8	15.3
Kirishinefteorgsintez	13.9	3.4
Total	28.6	33.9

Orthoxylene exports from Russia totalled 28,600 tons in the first seven months in 2019 against 33,900 tons in the same period last year. Kirishinefteorgsintez increased exports from 3,400 tons to 13,900 tons and Gazprom Neft reduced shipments from 15,100 tons to 2,900 tons. Ufaorgsintez reduced exports from 15,300 tons to 11,800 tons.

Russian Phenol Production (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Ufaorgsintez	44.6	36.9
Kazanorgsintez	45.2	44.1
Novokuibyshevsk Petrochemical	40.7	39.7
Total	130.4	120.7

Russian phenol market, Jan-Jul 2019

Russian phenol production rose in the first seven months in 2018 from 120,700 tons in 2018 to 130,400 tons in the same period in 2019. Novokuibyshevsk Petrochemical increased production from 39,700 tons to 40,700 tons whilst Ufaorgsintez increased production from 36,900 tons to 44,600 tons. Kazanorgsintez produced 44,100 tons versus 45,200 tons.

Russian Market Phenol Sales by Supplier (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Novokuibyshevsk Petrochemical	32.3	29.1
Kazanorgsintez	2.2	3.8
Ufaorgsintez	40.8	31.6
Borealis	1.3	5.4
Total	76.6	69.8

Sales of phenol on the Russian domestic market rose in the first seven months from 69,800 tons to 76,600 tons. The two largest suppliers were Novokuibyshevsk Petrochemical and Ufaorgsintez. The largest consumers are focused on the production of resins.

Omsk Kaucuk-cumene plant reconstruction

Currently, reconstruction of the cumene plant is being undertaken at the Omsk Kaucuk site, the main goal of which is to introduce a more efficient technology for production and to increase production by one third up to 160,000 tpa. The new cumene process at Omsk involves propylene and benzene undergoing an alkylation reaction in the presence of a zeolite catalyst.

Due to the use of the best available technology, the environmental impact will be reduced by 16 times due to the reduction of production waste and by-products, as well as the elimination of the formation of technological effluents. Supplies of cumene production equipment started in April 2019. In early August, preparatory work was carried out on the site for new construction.

Omsk Kaucuk, phenol-acetone modernisation

The modernisation and expansion at Omsk Kaucuk will allow phenol capacity to rise up to 90,000 tpa and acetone up to 56,000 tpa. The second stage of the project managed by Titan for Omsk Kaucuk is the processing of acetone into isopropanol where capacity has been set out as 30,000 tpa. The third stage of the project is the construction of bisphenol production with a capacity of 118,000 tpa followed by the fourth stage of the construction of a new epichlorohydrin plant. All of these products are being coordinated towards the development and production of epoxy resins at Omsk in order to address the large deficit in the Russian market.

Synthetic rubber

Russian C4 Purchases (unit-kilo tons)		
Consumer	***Jan-Jul 19***	***Jan-Jul 18***
Omsk Kaucuk	34.7	34.1
Nizhnekamskneftekhim	119.8	86.5
SIBUR Togliatti	122.4	112.4
Total	277.0	233.0

Russian C4s, Jan-Jul 2019

C4 sales on the domestic market in Russia totalled 277,000 tons in the first seven months in 2019 against 233,000 tons in the same period in 2018. SIBUR Togliatti increased merchant purchases of C4s from 112,400 tons to 122,400 tons, whilst Nizhnekamskneftekhim increased purchases from 86,500 tons to 119,800 tons and Omsk Kaucuk rose from 34,100 tons to 34,700 tons.

The largest supplier in the first seven months consisted of SIBUR-Kstovo which shipped 56,600 tons against 53,900 tons in the same period in 2018. Tomskneftekhim shipped 52,500 tons in January to July 2019 versus 38,300 tons, whilst Stavrolen dropped from 42,100 tons to 44,300 tons. Gazprom neftekhim Salavat supplied a total of 22,600 tons of C4s to Nizhnekamskneftekhim and SIBUR Togliatti, against no activity in the same period last year.

Tatneft hopes to purchase SIBUR Togliatti

Tatneft has entered into an agreement with SIBUR Holding to acquire a number of petrochemical plants in Togliatti, including the production of synthetic rubber and MTBE. The parties plan to conclude an agreement on the sale of production and other assets which are currently merged under SIBUR Togliatti and Togliattisintez.

SIBUR Togliatti Capacities	
Product	Capacities **(unit-ktpa)**
MTBE	120
Butadiene	80
Isoprene	90
Isobutylene-isobutane	165
Isobutylene	60
Butyl rubber	75
Isoprene rubber	82

Assets at Togliatti include the production of various types of synthetic rubber used to produce high-quality tyres by leading Russian and world manufacturers, as well as the production of MTBE. In addition, Tatneft will purchase facilities for the production of butadiene, isoprene and other intermediate products. SIBUR Togliatti includes capacities for butyl rubber (75,000 tpa), copolymer rubbers with a capacity of 60,000 tpa, butadiene (80,000 tpa), isoprene (90,000 tpa) and isoprene rubbers (82,000 tpa). The capacity for the production of isobutylene-isobutane fraction stands at 165,000 tpa and isobutylene at 60,000 tpa. In addition, the deal is to include objects of the industrial park, including a number of chemical and other technology companies. About 70% of products from SIBUR Togliatti are exported. The main consumers are well-known tyre companies such as Bridgestone, Pirelli, Nokian, Cordiant, Kenda, and Nexen, etc.

The acquisition by Tatneft of the listed assets is designed to support the vertical integration of the subsidiary Kama Tyres which are produced by Nizhnekamskshina. The company intends to continue their development as part of the implementation of the Tatneft oil and gas chemical strategy. The transaction is planned to be completed before the end of 2019, taking into account the necessary corporate procedures, obtaining the consent of the antimonopoly authorities and other actions provided by law.

SIBUR Togliatti Rubber Exports (unit-kilo tons)		
Product	***Jan-Jun 19***	***Jan-Jun 18***
Isoprene Rubber	16.8	11.3
Butyl Rubber	33.1	26.0
SBR	23.9	20.6
Others	0.5	0.0
Total	74.3	57.9

Besides Tatneft other bidders for assets at Togliatti included Kazanorgsintez, TAU Neftekhim, EKTOS, which bought Uralorgsintez from SIBUR. After completion of all corporate procedures and approvals, Tatneft will gain control over the production of various types of synthetic rubber, MTBE fuel, butadiene, isoprene and other intermediate products. Also, the company will manage the infrastructure of the industrial park, in the territory of which a number of technological companies of chemical and other profiles work.

Tatneftekhiminvest-holding previously noted that the conflict with Nizhnekamskneftekhim prevents the increase in production volumes. If the transaction goes ahead as expected the tyre producer

Nizhnekamskshina will be able to receive isoprene ad butyl rubber from Togliatti for the production of tyres, whilst Tatneft will also be able to ensure the production of fuel at the Taneko refinery at Nizhnekamsk with MTBE.

SIBUR, in turn, intends to focus on the creation and development of production of base polymers, promising medium tonnage products and premium special chemistry. At the same time SIBUR will continue to interact with Togliatti production on a partnership basis. A major reason for SIBUR wanting to offload the facilities and plants at Togliatti as it considers that it has taken these markets as far as it can go and prefers to concentrate on its strategic programme which does not include commodity rubbers. The deal between SIBUR and Tatneft is subject to approval by the antimonopoly authorities.

SIBUR-Reliance butyl rubber jv & other foreign rubber ventures

SIBUR-Reliance jv started tests on butyl rubber as part of the integrated petrochemical complex at Jamnagar. The capacity of the new plant is 120,000 tpa, of which 60,000 tpa will be devoted to production of halobutyl rubber. The jv Reliance SIBUR Elastomers Private Limited (74.9% is owned by Reliance, and 25.1% by SIBUR).

Other projects where SIBUR is involved are located in China and Saudi Arabia. In China, the Sinopec rubber project has been under discussion since 2013 involving the creation of a joint production of nitrile butadiene rubber. SIBUR's share in the joint venture is 25.1%, and the Chinese state-owned company 74.9%. In Saudi Arabia, SIBUR is exploring the possibility of implementing a project with Saudi Aramco. Unlike the Indian rubber project of SIBUR, other rubbers will be produced at the plant in Saudi Arabia and there may be a more complex shareholder structure.

Voronezhsintezkaucuk-expansion of thermoplastic elastomer

Voronezhsintezkaucuk has begun installation and assembly of an air emission purification unit at its new thermoplastic elastomer plant under construction. The equipment was supplied by the German company Venjakob. The construction of the TEP plant started in the third quarter of 2018, adding another 50,000 tpa of capacity and raising total capacity to 135,000 tpa. The start of production is scheduled for 2020.

A special investment contract was signed in early August which involves increasing capacity under the SBS, will increase the export of this product from the Voronezh region by more than two times.

SBS/TEP produced by SIBUR is used in the production of polymer-bitumen binders (PBB) for paving or roofing. Gazprom Neft expects to continue cooperation with SIBUR in the supply of polymers for the production of PBB. The production of polymer-bitumen binders (PBB) was launched in 2011 at Gazprom Neft's Omsk refinery using SIBUR polymers. At that time, purchases of the modifier amounted to only 50 tons but had risen to 7,000 tons in 2018.

Voronezhsintezkaucuk Exports (unit-kilo tons)

Product	*Jan-Jun 19*	*Jan-Jun 18*
Polybutadiene	33.0	34.9
SBR	33.0	35.7
Others	13.8	0.0
Total	79.8	70.6

Nizhnekamskneftekhim rubber exports (unit-kilo tons)

Category	*Jan-Jun 19*	*Jan-Jun 18*
Isoprene Rubber	110.0	108.3
Butyl Rubber	32.2	36.6
HBR	67.6	66.9
Polybutadiene	89.4	87.2
Total	299.2	298.9

Gazprom Neft sold 202,000 tons of premium bitumen products last year and accounted for around 40% of the Russian market. Market demand was estimated at 200,0000 tons of PBBs, being preferred to basic bitumen. Gazprom Neft produces bitumen materials in Moscow, Vyazma, Omsk, Yaroslavl and Ryazan regions, as well as in Kazakhstan and Serbia. The company produces road, building and roofing bitumen, polymer-bitumen binders (PBB), polymer-modified bitumen (PMB), bitumen-derived products (mastics, sealants, joint tapes, etc.).

Nizhnekamskneftekhim, first half year rubber sales & expansion plans

Nizhnekamskneftekhim's revenues from sales of synthetic rubbers grew by 8.7% in the first half of 2019 to 37.29 billion roubles. Revenues from the sale of plastics slightly decreased and amounted to 28.33 billion roubles. Nizhnekamskneftekhim intends to increase the production of synthetic rubbers to 1 million tpa from its current level of capacity of 730,000 tpa.

Currently, the company is working on the development of the production of a new type of rubber, divinyl-styrene rubber, which will be launched next year in May. Divinyl-styrene synthetic rubber is used in the

rubber and shoe industries, in the manufacture of conveyor belts and in particular in the production of environmentally friendly green tyres.

The capacity of the new production of divinyl-styrene rubbers will be 60,000 tpa, whilst the new installation will also produce thermoplastic elastomers (TEP, SBS) of up to 10,000 tpa. The licensor of production is the Japanese company ETIC Inc. The company's plans include the production of five grades of divinyl styrene rubber, which will cover demand for all types of tyres.

Also, the investment programme for Nizhnekamskneftekhim includes a project to increase the capacity for isoprene rubber from 270,000 tpa to 420,000 tpa. For halobutyl and butyl rubbers, the company can produce 200,000 tpa at present and hopes by 2021 to increase this to 220,000 tpa. With the start of isoprene-monomer production of isobutylene at the plant and the completion of technical re-equipment of isoprene production, the programme to increase the production of SKI-3 isoprene rubber to 330,000 tpa.

Russian Synthetic Rubber Exports 2019 (unit-kilo tons)

Country	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*
China	13.6	12.4	11.6	12.1	7.7	8.0
Poland	8.8	9.3	11.3	8.9	9.2	11.2
Hungary	8.2	5.9	8.2	5.5	5.9	7.6
India	8.7	7.8	6.8	7.6	4.8	4.6
US	8.7	4.4	5.9	4.4	3.4	3.1
Mexico	4.5	5.3	5.7	3.8	4.3	6.1
Turkey	3.5	4.8	5.6	4.7	3.2	4.2
Slovakia	3.7	3.7	3.8	4.2	4.7	5.5
Romania	3.5	3.5	4.1	4.8	3.8	3.3
Brazil	2.4	3.5	2.9	2.3	3.7	2.3
Czech	2.6	2.6	3.2	3.2	3.5	3.0
Germany	2.9	3.2	2.6	3.0	2.0	2.4
Belarus	3.1	2.6	2.3	3.1	2.8	2.8
Ukraine	1.1	1.2	1.8	2.1	1.9	1.7
Others	16.2	15.7	16.9	19.0	15.9	14.1
Total	91.5	85.7	92.7	88.8	76.7	79.9

Nizhnekamskneftekhim-Tatneft rubber conflict

The conflict between Nizhnekamskneftekhim and Tatneft over rubber prices has led to a decrease in tyre production at the enterprises of the latter this year. Isoprene rubber production at Nizhnekamsk, moreover, was reduced due to a 30% reduction in supplies to the republic's tyre plants. The Tatneft tyre complex was forced to reduce production in the first half of the year, adding that butyl rubber production was also reduced. A total of 347,000 tons of synthetic rubbers were produced in the republic.

In addition to Nizhnekamskshina, the Tatneft tyre group includes the Nizhnekamsk truck tyre factory, the Nizhnekamsk tyre factory CMK, Tatneft-Neftekhimsnab (supplies the group with raw materials), and the KAMA Trading House (sells finished products), STC Kama.

Russian synthetic rubber exports, Jan-Jun 2019

Russian exports of synthetic rubber amounted to 513,900 tons in the first six months in 2019 versus 511,100 tons in the same period in 2018. Revenues from synthetic rubber exports amounted to $825 million against $847 million in January to June 2018.

Russian Synthetic Rubber Exports (unit-kilo tons)

Product	*Jan-Jun 19*	*Jan-Jun 18*
E-SBR	23.1	15.8
Block	19.6	15.4
SSBR	6.8	4.7
SBR	39.9	46.8
Polybutadiene	121.5	121.2
BR	64.5	62.3
HBR	66.8	66.3
NBR	17.9	15.7
Isoprene	138.4	145.0
Others	15.3	17.8
Total	513.9	511.1

The highest value product category exported from Russia is halogenated butyl rubber (HBR) where exports totalled 66,800 tons in the first six months in 2019 at a total value of $160 million. Polybutadiene exports from Russia amounted to 121,500 tons in the first six months in 2019 at a value of $200 million and isoprene rubber exports totalling 136,400 tons for $201 million. In terms of revenues for Russian synthetic rubber exports in 2018, polybutadiene rubber provided the largest source of sales totalling $395.5 million.

This was followed by isoprene, butyl rubber and halogenated butyl rubber. More detail of volumes and revenues for individual products is available on the CIREC website. Regarding shipment destinations China represented the largest market for Russian exporters in the first six months in 2019, accounting for 13% of sales. This was followed by Poland with 10.8%, after which came Hungary with 8.9%.

Methanol

Russian methanol production Jan-Jul 2019

Russia produced 2.671 million tons of methanol in January to July 2019 against 2.464 million tons in the same period in 2018. Metafrax produced 713,300 tons against 715,500 tons whilst Sibmetakhim at Tomsk increased production from 542,300 tons to 550,800 tons. Tomet at Togliatti reduced production to 507,100 tons from 447,700 tons. Shchekinoazot reported the most significant results, more than doubling from 272,100 tons to 555,000 tons following the installation of the new 450,000 tpa plant. The combined complex of methanol and ammonia M-450/A-135 at Shchekinoazot has been operating at a stable load.

Russian Methanol Production (unit-kilo tons)

Producer	*Jan-Jul 19*	*Jan-Jul 18*
Shchekinoazot	555.0	272.1
Sibmetakhim	550.8	542.3
Metafrax	713.3	715.5
Akron	60.1	62.4
Azot, Novomoskovsk	146.9	168.7
Angarsk Petrochemical	24.6	2.2
Azot, Nevinnomyssk	71.5	61.7
Tomet	447.7	507.1
Ammoni	100.8	131.7
Totals	2670.7	2463.6

Russian methanol export sales, Jan-Jul 2019

Export shipments of methanol from Russia in January-July increased to 1.268 million tons compared to 1.066 million tons in the same period in 2018. The increase in exports was made possible due to the launch of the new unit at Shchekinoazot where exports more than doubled from 207,000 tons in the first seven months last year to 444,400 tons in the same period this year.

Deliveries of Russian methanol through Polish border crossings in the first half of 2019 increased to 190,600 tons against 152,400 tons. The bulk of methanol into eastern Europe was shipped to the Polish market, and deliveries were also made to the Czech Republic, Slovakia, eastern parts of Germany and Austria. The main outlet for Russian methanol exports remains Finland where volumes totalled 461,600 tons in the first half of 2019 against 490,500 tons in the same period in 2018.

Russian Methanol Exports (unit-kilo tons)

Producer	*Jan-Jul 19*	*Jan-Jul 18*
Azot Novomoskovsk	43.5	81.0
Akron	3.8	9.1
Metafrax	275.8	310.2
Sibmetakhim	280.4	285.8
Tomet	206.2	171.3
Shchekinoazot	444.4	207.0
Ammoni	13.5	1.6
Total	1267.5	1066.1

Russian Methanol Exports by Destination

Country	*Jan-Jun 19*	*Jan-Jun 18*
Finland	461.6	490.5
Poland	190.6	152.4
Slovakia	68.5	64.4
Romania	38.7	43.2
Belarus	24.8	42.9
Lithuania	68.6	38.5
Turkey	16.2	0.0
Others	159.0	105.4
Total	1028.0	937.3

Russian methanol domestic sales, Jan-Jul 2019

Domestic sales of methanol on the Russian market amounted to 835,500 tons in January to July 2019 versus 899,700 tons in the same period last year. Tomet reduced sales from 308,600 tons in the first seven months in 2018 to 222,600 tons this year, partly due to lower production and partly to higher exports. Ammoni at Mendeleevsk also reduced domestic shipments to 97,100 tons from 57,700 tons. Sibmetakhim from its Tomsk site increased sales from 211,500 tons to 220,600 tons whilst Azot at Novomoskovsk increased sales from 82,900 tons to 90,300 tons.

Of the main consumers, Nizhnekamskneftekhim purchased 137,500 tons in the first seven months this year against 146,600 tons in the same period in 2018 whilst SIBUR-Togliatti increased purchases from 73,700 tons in January to July 2018 to 93,000 tons in the same period this year. Other than the MTBE producers Uralkhimplast purchased 26,600 tons in January to July 2019, Metadynea purchased 42,808 tons and Kronospan purchased 61,940 tons. Regarding long term contracts for 2020, Rosneft is seeking supplies for the Otradnensky Gas Processing Plant.

Russian Methanol Domestic Sales (unit-kilo tons)

Producer	*Jan-Jul 19*	*Jan-Jul 18*
Azot Nevinnomyssk	17.8	8.6
Azot Novomoskovsk	90.3	82.9
Metafrax	147.7	159.4
Sibmetakhim	220.2	211.5
Tomet	222.6	308.6
Shchekinoazot	79.1	29.8
Ammoni (Mendeleevsk)	57.7	97.1
Others	0.0	1.9
Total	835.5	899.7

Ammoni-decision on new owners

An agreement has been reached for the sale of Ammoni plant (Mendeleevsk, Tatarstan) to businessman Roman Trotsenko which will buy the company for around $900 million. Trotsenko, the owner of SDS Azot at Kemerovo, was selected during a competitive procedure organised by Gazprombank. Upon the sale, the debt of Ammoni will be converted into shares. The plant's products are compatible with the product line of the Kemerovo Azot and Angarsk Nitrogen Fertiliser plants that are part of SDS Azot.

Major Russian Methanol Buyers (unit-kilo tons)		
Consumer	***Jan-Jul 19***	***Jan-Jul 18***
Nizhnekamskneftekhim	137.5	146.6
SIBUR Togliatti	93.0	73.7
Uralorgsintez	51.3	38.9
Ektos-Volga	33.0	30.4
Omsk Kaucuk	56.9	50.6
Novokuibyshevsk NPZ	30.4	48.8
Uralkhimplast	26.6	12.7
Others	406.8	467
Total	835.5	868.7

Ammoni's current ownership comprises Tatammonia LLC (52.9%), the Tatarstan venture fund (24.3%), and VEB (22.8%). The bank VEB is also the largest creditor of the enterprise. The Republic of Tatarstan will try to maintain its presence in the share capital of Ammoni, but this may be difficult as the new owner is seeking 100% of ownership.

7The capacity of the Ammoni complex includes 717,000 tpa of ammonia (without methanol) or 455,000 tpa of ammonia and 238,000 tpa of methanol. The enterprise is also capable of producing 717,000 tpa of urea and 300,000 tpa of ammonium nitrate. Urea produced from Mendeleevsk is exported, ammonium nitrate is supplied to the domestic market, and methanol is shipped to chemical plants, including Nizhnekamskneftekhim. The volume of natural gas consumption at the complex is about 1 billion cubic metres per annum.

Nakhodka Methanol & Fertiliser Plant signs license agreement with Haldor Topsoe

The Nakhodka Mineral Fertiliser Plant entered into an agreement with Haldor Topsoe to provide a license for the production of methanol. Under the contract, Haldor Topsoe will act as the licensor of the project for the production of methanol with a capacity of 5,400 tons per day and will supply catalysts and equipment using its own technologies.

Haldor Topsoe was selected as the company has been on the Russian market for some time and has made a competitive offer based on proven and reliable technology. The general contractor for the project selected is China Chengda Engineering. The Nakhodka Mineral Fertiliser Plant has also entered into an agreement with VEB RF and VTB Bank on financing the project. The project to build the Nakhodka Mineral Fertiliser Plant in the Primorsky Territory will receive a soft loan of 7 billion roubles from the Development Fund of the Far East (FRDV). These funds are allocated on preferential terms at 5% per annum.

The design capacity of the methanol plant is expected to be 1.8 million tpa. The design and start of construction of the plant with the support of VEB and VTB should begin in the next few months, and full capacity operation is planned for mid-2023 although that timeline could easily change. The mineral fertiliser and methanol plant at Nakhodka comprise plants for the production of methanol and ammonia will be located between the port of Vostochny and the port of Kozmino. The plant will consume around 3.2 billion cubic metres of gas per annum.

Russian Butanol Production (unit-kilo tons)		
N-Butanol		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Angarsk Petrochemical	13.6	17.0
Azot	8.2	8.3
Gazprom n Salavat	34.7	32.8
SIBUR-Khimprom	22.5	24.3
Total	79.1	82.3
Isobutanol		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Angarsk Petrochemical	8.1	9.2
Gazprom n Salavat	20.0	21.6
SIBUR-Khimprom	31.4	29.0
Total	59.5	59.8

Organic chemicals

Russian butanol production Jan-Jul 2019

Russian normal butanol production totalled 79,100 tons in January to July 2019, against 82,300 tons in the same period in 2018.

Gazprom neftekhim Salavat was the largest producer, producing 34,700 tons against 32,800 tons in January to July 2018. Isobutanol production in Russia in the first seven months dropped slightly from 59,800 tons to 59,500 tons. Gazprom neftekhim Salavat

reduced isobutanol production to 20,000 tons from 21,600 tons, whilst SIBUR-Khimprom increased to 31,400 tons from 29,000 tons.

Russian domestic butanol sales, Jan-Jul 2019

Russian butanol merchant sales in January to July this year amounted to 30,800 tons against 39,600 tons in January to July 2018. The main cause of the fall was the limited supply made available from Salavat, where only 3,500 tons were shipped in the first seven months.

Russian Butanol Domestic Sales (unit-kilo tons)		
Producer	***Jan-Jul 19***	***Jan-Jul 18***
Gazprom n Salavat	3.5	4.9
SIBUR-Khimprom	15.4	15.7
Angarsk Polymer Plant	10.0	12.8
Azot Nevinnomyssk	1.1	0.8
Others	0.8	5.5
Totals	30.8	39.6

The two largest domestic purchasers in January to July 2019 were Dmitrievsky Chemical Plant with 10,500 tons, versus 8,900 tons, and Akrilat at Dzerzhinsk with 9,700 tons against 10,600 tons. Butanol sales on the merchant domestic market amounted to 58,100 tons in 2018 against 59,900 tons in 2017.

N-butanol availability in the Russian market is affected by processing by both Gazprom neftekhim Salavat and SIBUR-Khimprom. Gazprom neftekhim Salavat uses a significant part of its own n-butanol to produce butyl acrylate, whilst SIBUR uses it also for internal processing. SIBUR stopped production of butanols in early July for maintenance which lasted for around a month. Angarsk Petrochemical is the only producer with available product where there is no internal demand.

Russian Butanol Consumption (unit-kilo tons)		
Consumer	***Jan-Jul 19***	***Jan-Jul 18***
Akrilat	9.7	10.6
Dimitrievsky Chemical	10.5	8.9
Kazanorgsintez	0.3	0.8
Volzhskiy Orgsintez	5.7	4.9
Roshalsjy Plant of Plasticizers	0.3	1.8
Others	4.3	12.4
Total	30.8	39.6

In the first half of 2019 butanol exports dropped from 36,600 tons to 31,200 tons. The main destinations for Russian butanol exports remain China, Poland, India and the Netherlands. The share of normal butanol in all-Russian exports from January to June 2019 narrowed by 34%, although isobutanol increased by 18%. The supply of n-butanol in the free market is declining due in particular to increased production of 2-ethylhexanol at SIBUR-Khimprom in relation to the new 100,000 tpa DOTP plasticizer plant.

Russian oxo alcohol and organic chemical trade, Jan-Jun 2019

Russian exports of 2-ethylhexanol (2-EH) dropped to 3,100 tons in the first six months in 2019 against 12,400 tons in the same period in 2018, whilst n-butanol and isobutanol exports remained virtually the same. 2-EH exports from Russia are expected to continue falling in 2019 as domestic demand increases following the start-up of the SIBUR DOTP plant at Perm. Turkey was the main destination for Russian 2-EH exports in 2018, taking 51% of shipments, followed by the Netherlands with 15.8%.

Russian Organic Chemical Imports (unit-kilo tons)		
Product	***Jan-Jun 19***	***Jan-Jun 18***
Isopropanol	7.1	9.9
Maleic anhydride	2.9	3.0
DINP	14.4	11.8
DOP	0.9	5.1
Phthalic anhydride	7.6	7.9
PTA	221.0	117.8
TDI	23.4	24.5
Lysine	29.9	51.0
Other Amino acids	9.4	16.2
Methionine	16.6	11.6
Cyclic amides	2.6	2.2

Notable rises were seen in exports of caprolactam, from 15,400 tons to 37,400 tons, and acrylonitrile from 24,000 tons to 38,600 tons. At the same time falls were seen melamine, dropping from 16,000 tons to 2,000 tons and phthalic anhydride which dropped from 29,700 tons to 14,000 tons.

Imports of phthalic anhydride into Russia amounted to 7,600 tons in the first half of 2019 against 7,900 tons in the same period last year, whilst PTA imports increased from 117,800 tons to 221,000 tons. Modernisation at Polief, the sole producer of PTA in Russia, culminated in a sharp rise in inward shipments although volumes are expected to decline in the second half of the year. DINP imports rose from 11,800 tons to 14,400 tons whilst DOP imports dropped from 5,100 tons to only 900 tons. Imports of the amino acid lysine dropped from 51,000 tons in the first half of 2018 to 29,900 tons in the same period in 2019 due to rises in domestic production.

Russian acetone exports, Jan-Jun 2019

Acetone exports from Russia rose from 17,400 tons in January to June 2018 to 16,600 tons in the same period in 2019. Prices for acetone have dropped this year and despite recent signs of improvement averaged less than $457 per ton in the first six months in 2019. The Netherlands took the most acetone from Russia this year to date, accounting for 4,950 tons followed by Belarus and Turkey. Revenues from the export of acetone from Russia amounted to $7.3 million in the first half of 2019 versus $13.8 million in the same period in 2018.

Acetone exports are conducted not only from the Russian producers, but also traders which is generally not the case with phenol export shipments. The largest exporter of acetone in Russia is Dmitrievsky Chemical Plant which shipped 9,499 tons in 2018, most of which went to the Netherlands. The Dmitrievsky Chemical Plant is the largest producer of butyl acetate in Russia, but also trades in oxo alcohols and acetone. The second largest exporter is Novokuibyshevsk Petrochemical Company which ships product mostly to Turkey and Latvia. In 2018 Belarus purchased a total of 14,670 tons of acetone from Russia, mostly from Kazanorgsintez, Ufaorgsintez and sometimes Dmitrievsky Chemical Plant.

Russian Acetone Exports (unit-kilo tons)

Country	*Q1 18*	*Q2 18*	*Q3 18*	*Q4 18*	*Q1 19*	*Q2 19*
Belarus	4.4	4.4	4.7	1.1	0.0	3.3
Netherlands	2.2	1.7	2.6	2.4	2.8	2.1
Turkey	0.5	0.9	1.6	1.3	1.2	2.6
Others	2.7	0.8	1.0	1.4	1.9	2.4
Total	9.9	7.8	10.0	6.2	6.0	10.4

Tatneft-maleic anhydride project update

Tatneft is collecting information and materials for assessing the environmental impact of building a maleic anhydride plant at Minnibayevo in Tatarstan. After November this year the information will go to a public hearing, and if approved Tatneft hopes to start construction in 2020. Tatneft has already agreed licence terms with the Italian engineering company Conser, basing it on the oxidation of butane into maleic anhydride.

Russian Organic Chemical Imports (unit-kilo tons)

Product	*Jan-Jun 19*	*Jan-Jun 18*
Ethylene glycol	28.2	27.0
Propylene glycol	10.9	12.8

The capacity of the new installation will be 50,000 tpa of maleic anhydride to be located on the territory of the Minnibayevo gas processing plant in the Almetyevsk region. The project is part of a wider investment programme for a gas and petrochemical complex in Tatarstan, the cost of which is estimated at 70.6 billion roubles. It is assumed that the complex will process 390,000 tpa of raw materials and produce 317,000 tpa of products: including maleic anhydride, polypropylene, acrylonitrile and carbon fibre. Demand for maleic anhydride in the Russian domestic market is currently about 4,500 tpa, all of which is based on imports.

Russian TDI Imports (unit-kilo tons)

Country	*Jan-Jun 19*	*Jan-Jun 18*
Hungary	4.7	5.1
Germany	4.9	9.3
China	1.2	0.0
South Korea	0.5	0.9
Saudi Arabia	5.0	4.9
UK	0.0	0.1
US	4.7	2.4
Turkey	0.1	0.0
Japan	0.8	1.2
Belgium	0.4	0.4
Netherlands	0.7	0.0
France	0.1	0.2
Poland	0.0	0.1
Iran	0.0	0.1
Total	23.1	24.8

Other products

Russian TDI imports, Jan-Jun 2019

Russian TDI imports amounted to 23,100 tons in the first six months in 2019 against 24,800 tons in the same period last year. Germany remained the largest supplier, despite reducing shipments from 9,300 tons to 4,900 tons whilst Hungary shipped 4,700 tons against 5,100 tons.

The main regions inside Russia accounting for TDI purchases, include the Moscow area nearly 48% of shipments in the first half of 2019, followed by Tatarstan with 22%. Despite the slight fall in volume imports of TDI in the first half of 2019 import costs dropped sharply from $97.2 million to $47.1 million due to the sharp drop in prices. In the first half of 2019, TDI import prices into Russia averaged $1838 per ton against $3464 per ton for the whole of 2018. Prices internationally have been affected by oversupply, particularly in Asia and China, although demand remains relatively positive.

Russian MDI imports, Jan-Jun 2019

MDI imports into the Russian market rose in the first six months in 2019 to 74,400 tons from 63,500 tons in the same period last year. Import costs for MDI in the first half of 2019 totalled $117 million in the first half of 2019 against $159 million in the same period last year, with average prices dropping this year to $1554 per ton versus $2300 per ton in 2018.

Russian Imports of MDI (unit-kilo tons)		
Country	***Jan-Jun 19***	***Jan-Jun 18***
Hungary	3.9	2.0
Germany	7.6	7.4
China	18.1	7.9
South Korea	1.0	0.6
Saudi Arabia	18.8	16.4
Japan	1.0	0.5
Belgium	8.4	6.9
Netherlands	15.4	18.8
Others	0.2	3.1
Total	74.4	63.5

The main supplier of MDI imports to the Russian market in the first half of 2019 was Saudi Arabia, shipping 18,800 tons against 16,400 tons in the same period last year. China supplied 18,100 tons against 7,900 tons in January to June 2018, whilst the Netherlands dropped from 18,800 tons to 15,400 tons. Prices of TDI from China have been higher than prices from Saudi Arabia. Regarding regional sales, the Moscow area accounted for 42.5% of import shipments of MDI in the first half of 2019, followed by the Vladimir Oblast with 20.2% and the Kaluga Oblast with 12.9%.

Russian caustic soda production, Jan-Jul 2019

Russian caustic soda production totalled 743,200 tons in the first seven months in 2019, up by 1% over the same period in 2018 when volumes totalled 734,500 tons. RusVinyl produced 135,300 tons, 14% up, whilst Kaustik at Volgograd produced 134,500 tons of caustic soda against 130,900 tons in January to July 2018. Bashkir Soda Company increased its product output by 5% compared to the previous year up to 118,600 tons. Sayanskkhimplast produced 120,800 tons of caustic soda versus 119,400 tons.

Catalyst news

A subsidiary of the Salavat Catalyst Plant intends to launch dimethyl sulphide production in the Orenburg region by 2021. Orenburg Sulphiding Company LLC intends to invest 1.5 billion roubles in the project. Currently dimethyl sulphide in Russia, where demand is estimated at around 2,500 tpa, is imported from France and partially from China. The company plans to produce up to 6,000 tpa of dimethyl sulphide, and export part of the volume to European countries. Dimethyl sulphide can be used as a modifier for cracking and reforming catalysts, as an odorant of natural gas 4or as an intermediate in the production of insecticides. Orenburg Sulphiding Company was founded in November 2017 at Orenburg with an authorized capital of 10,000 roubles.

Tomskneftekhim has upgraded compressor equipment in the production of triethylaluminum (TEA), which made it possible to increase the output capacity by 35%. Accordingly, the capacities of the plant for the production of TEA increased from 170 to 230 tpa. TEA is used as a component of a catalyst that is used to produce polypropylene, linear low-density polyethylene and high-density polyethylene. Tomskneftekhim provides TEA with its own production, and also ships the product to SIBUR Tobolsk and NPP Neftekhimiya at Moscow and Omsk Polyom. Tomskneftekhim's capacities include 140,000 tpa for polypropylene and 245,000 tpa for LDPE.

Ukraine

Ukrainian Polymer Imports (unit-kilo tons)		
Product	***Jan-Jul 19***	***Jan-Jul 18***
PVC	26.9	43.7
LDPE	45.4	46.1
LLDPE	32.4	32.0
HDPE	45.4	46.1
Ethylene Vinyl Acetate	5.2	5.7
Polypropylene	79.0	74.0

Ukrainian polymer imports & production, Jan-Jul 2019

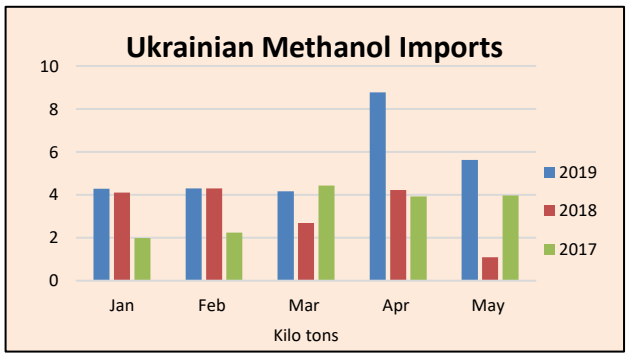
Ukrainian imports of PVC decreased by 38% in the first seven months in 2019 to 26,900 tons against 43,700 tons in the same period last year. European suppliers provided 67% of deliveries in the first seven months in 2019, with the US supplying 33%. Regarding export activity from Karpatneftekhim, Ukraine shipped 92,400 tons in the first five months against 99,800 tons in the same period in 2018.

Polypropylene imports into Ukraine rose 7% in the first seven months in 2019 to 79,000 tons, up from 74,000 tons last year. In the first seven months, total deliveries of PP-homo amounted to 61,400 tons

against 54,800 tons whilst propylene block copolymer imports amounted to 7,500 tons versus 7,700 tons. Imports of PP-Random into Ukraine dropped from 10,200 tons to 9,000 tons, whilst the supply of other propylene copolymers amounted to 1,100 tons. Regarding polystyrene, Nizhnekamskneftekhim reduced quantities to Ukrainian buyers in August and September by 2-3 times due to shortages in the Russian market.

Imports of polyethylene to the Ukrainian market increased in the first seven months in 2019 by 12% to 111,300 tons compared to 100,300 tons. Almost all grades of ethylene polymers accounted for the increase in imports. HDPE imports amounted to 45,400 tons in the first seven months in 2019, compared to 46,100 tons in January to July 2018. LDPE imports dropped 1.5% to 45,400 tons.

Ukraine's overall production of HDPE fell in the first seven months of 2019 by 12% year on year, totalling 50,800 tons. July HDPE output rose in Ukraine by 9.3% from the previous month to 9,400 tons. This figure was at around 8,600 tonnes in June. In August, Karpatneftekhim reduced its capacity utilisation by 20% from July, the same level of utilisation was also planned for September.



Ukrainan methanol imports, Jan-Jul 2019

Ukrainian methanol imports amounted to 36,435 tons in the first seven months in 2019 against 29,500 tons in the same period in 2018. In 2018, Ukraine imported 43,600 tons of methanol, nearly all of which was shipped from Russia (34,000 tons) and Belarus (9,500 tons). Ukrgasdobycha, which produces gas in Ukraine, imported 27,000 tons of methanol in 2018, and 14,500 tons for the first seven months in 2019.

Ukrgasdobycha has placed an order with Swiss company AGTG SA to supply methanol for 8,500 tons of methanol for delivery up to August 2020. The total value of the contract is 67 million hryvnia under which methanol grade A will be supplied at a price of €279 per ton. Also, in August Ukrgasvydobuvannya ordered a small shipment of methanol from Petrochemical Systems LP (Scotland) at a preliminary price of €301 per ton.

Karpatneftekhim Petrochemical Exports (unit-kilo tons)		
Product	***Jan-Jul 19***	***Jan-Jul 18***
Propylene	45.9	52.4
Benzene	38.5	37.6

Karpatneftekhim, Jan-Jul 2019

Karpatneftekhim exported 45,900 tons of propylene in the first seven months in 2019 against 52,400 tons in the same period last year, whilst increasing benzene exports from 37,600 tons to 38,500 tons. In the second half of August Karpatneftekhim started a planned shutdown at the benzene plant for a period of around 35 days. Ukraine is seeking alternative gas and LPG supplies for 2020 and is considering deliveries from Qatar either through the Trans-Balkan gas pipeline or by ship through the Straits of Bosporus and Dardanelles.

Belarus

Belarussian Xylene Imports (unit-kilo tons)		
Product	*Jan-Jun 119*	*Jan-Jun 18*
Orthoxylene	*9.239*	*13.387*
Paraxylene	9.244	*2.338*

Belarussian xylene and propylene imports, Jan-Jun 2019

Orthoxylene imports into Belarus dropped from 13,397 tons in the first six months in 2019 against 9,239 tons in the same period in 2019, whilst paraxylene imports rose from 2,338 tons to 9,244 tons. Prices for paraxylene imports into Belarus increased in the first six months this year to $1035 per ton against $922 per ton in the same period in 2018. Russia remains the sole supplier of orthoxylene and paraxylene into Belarus. Belarus imported 20,905 tons of propylene in the first six months in 2019 against 21,954 tons in the same period last year. Propylene prices dropped from €934 per ton in 2018 to €892 per ton in January to June 2019. Propylene is used in Belarus mainly for the production of acrylonitrile.

Belarussian organic chemical trade, Jan-Jun 2019

Phthalic anhydride exports from Belarus totalled 19,500 tons in the first six months in 2019 against 24,300 tons in the same period in 2018. Acrylonitrile exports dropped to 21,100 tons from 19,300 tons whilst caprolactam shipments amounted to 5,500 tons against 4,000 tons. Methanol imports dropped from 46,124 tons to 33,992 tons whilst exports rose from dropped from 11,814 tons to 8,357 tons. Methanol consumption dropped slightly in the first six months from 48,400 tons to 37,700 tons.

Belarussian Acrylonitrile Exports (unit-kilo tons)		
Product	***Jan-Jun 19***	***Jan-Jun 18***
Russia	0.9	1.6
Hungary	0.0	0.7
Iran	0.0	1.5
Netherlands	6.1	0.0
Turkey	11.9	17.1
Others	0.4	0.2
Total	19.3	21,1

Acrylonitrile exports from Belarus in the first half of 2019 were targeted mainly on Turkey and the Netherlands. Exports totalled 19,300 tons in the first half of 2019 against 21,100 tons in the same period in 2018.

Azot Grodno Production (unit-kilo tons)		
Product	***Jan-Jun 19***	***Jan-Jun 18***
Methanol	40.7	35.3
Caprolactam	58.5	61.4
Polyamide primary	53.1	57.1
Polyamide filled	6.1	6.1
Ammonia	561.4	541.7
Urea	464.8	518.4
Fertilisers	433.4	392.6
Fibres	21.8	21.1

Grodno Azot, Jan-Jun 2019

In the first six months in 2019 Azot at Grodno increased methanol production to 40,729 tons from 35,287 tons in the same period in 2018, whilst caprolactam production dropped slightly from 61,279 tons to 58,543 tons. Around 80% of polyamide and caprolactam produced by Grodno Azot is exported. This year the company opened a new workshop for the production of nitric acid and liquid nitrogen fertilisers which will increase the output of mineral fertilisers to 1.2 million tpa. Azot is currently seeking project contractors for its main investment programme, selecting from potential companies such as China Machinery Industry Construction Group, Tecnimont and Samsung Engineering.

Belarussian MDI Imports (unit-kilo tons)		
Country	***Jan-Jun 19***	***Jan-Jun 18***
Russia	1.1	1.4
Belgium	2.7	1.4
Hungary	0.5	1.4
Germany	4.0	2.6
Saudi Arabia	1.0	2.2
Others	1.0	0.6
Total	10.3	9.7

Belarussian MDI imports, Jan-Jun 2019

MDI imports into Belarus totalled 10,429 tons in the first six months in 2019 against 9,635 tons in the same period last year. Germany was the largest supplier, increasing shipments in January to June 2018 from 2,617 tons at $2847 per ton up to 4,019 tons at a much-reduced price of $1570 per ton. Hungary reduced shipments into Belarus from 1,391 tons to 471 tons. Overall, MDI prices dropped from $2810 per ton in January to June 2018 to $1593 per ton in the same period this year.

Belarussian Methanol Market (unit-kilo tons)		
	Jan-Jun 19	***Jan-Jun 18***
Production	40.7	27.7
Exports	8.4	11.8
Imports	46.1	34.0
Balance	78.4	48.4

Belarussian polymer trade, Jan-Jun 2019

In the first six months this year Belarussian PVC imports increased by 14.5% and amounted to 19,400 tons, of which Russia provided 87% of shipments. LDPE imports into Belarus dropped in the first six months in 2019 to 24,300 tons from 24,800 tons whilst HDPE imports dropped to 30,189 tons versus 30,400 tons. Exports of LDPE from Belarus rose to 36,183 tons from 33,833 tons in January to June 2018.

Polypropylene imports into Belarus totalled 57,600 tons for the first six months in 2019 versus 51,299 tons in the same period in 2018. The main exporters to Belarus included Russia with 45,891 tons and Azerbaijan with 1,168 tons from the new SOCAR-Polymer plant. Homopolymer imports rose 8.3% in the first half of 2019 to 36,300 tons, whilst imports of propylene copolymers dropped 22% to 19,500 tons.

Belarussian exports of polyamide amounted to 33,495 tons in the first six months in 2019 at a price of $1,794 per ton against 36,350 tons in the same period last year at a price of $2,126 per ton. Due to the fall in prices revenues dropped from $77.672 million to $60.087 million. Destination sales for Belarussian polyamide exports are focused largely on the CIS and European markets.

Belarussian PTA Imports (kilo tons)		
Country	***Jan-Jun 119***	***Jan-Jun 18***
Russia	1.0	1.2
Belgium	0.0	0.5
India	0.0	0.0
Turkey	1.0	0.0
South Korea	6.5	5.3
Portugal	5.0	0.0
Poland	15.3	7.5
Thailand	0.2	0.0
Total	28.0	14.6

Belarussian PTA imports, Jan-Jun 2019

PTA imports into Belarus totalled 28.042 tons in the first six months in 2019, versus 14,608 tons in the same period in 2018. Imports from South Korea increased to 6,500 tons in January to June 2019 from 5,324 tons in the same period last year, at a price of €1015 per ton in 2019 against €765 per ton. Poland increased shipments of PTA to Belarus from 7,526 tons to 15,348 tons, with prices rising from €833 per ton in January to June 2018 to €904 per ton in the same period this year. The other main supplier in 2019 comprised Portugal which shipped 5,021 tons in the first six months.

Central Asia/Caucasus

Azerbaijan petrochemical production, Jan-Jul 2019

In January-July 2019, 60.600 tons of propylene was produced in Azerbaijan, 61.3% more than the same period last year. Polyethylene production increased 0.8% to 69,000 tons. SOCAR has stopped exporting propylene since the start-up of the polypropylene plant at SOCAR-Polymer last year, and nearly all propylene was use internally which was 2.3-fold up from 2018. Also, ethylene exports are expected to decline in 2019 as product will also be supplied to SOCAR Polymer for production of HDPE.

Azerbaijan Chemical Production (unit-kilo tons)		
Product	***Jan-Jul 18***	***Jan-Jul 18***
Ethylene	80.0	65.5
Polyethylene	69.0	68.2
Propylene	60.6	41.5
Methanol	232.3	76.5

Ethylene production rose 18.7% in the first seven months in 2019 to 80,000 tons. Polyethylene export revenues amounted to $47.1 million in the first seven months in 2019,17.8% down on 2018, whilst polypropylene export revenues rose 83 times to $41.8 million.

SOCAR petroleum production Jan-Jul 2019		
Product	***Unit-kilo tons***	***% vs 2018***
Motor gasoline	714.1	+2.3
Diesel fuel	1250	+6.9
Naphtha	170.4	+26.8
Kerosene	350.8	+0.5

Azerbaijan-methanol exports & production, Jan-Jul 2019

In January-July 2019, SOCAR produced 232,400 tons of methanol, 3.3 times higher than in 2018 and most of which was exported. Azerbaijan exported methanol for $38.5 million in the first seven months in 2019 which is 2.9 times more than in the same period in 2018. The methanol plant was commissioned in 2013, transferred to the management of SOCAR Methanol LLC from 2016, and from August 2017 it became the property of the company. The maximum capacity of the plant is 650-700,000 tpa.

Atyrau-benzene supplies to Russia

Atyrau Refinery reduced the supply of benzene to Russian consumers to 1,000-1.500 tons per month over August and September due to technical problems. Normally the company ships about 2,700 tons of benzene to the Russian market. In the coming months, this level will be reduced by almost half. The Atyrau Refinery exports all of its benzene to Russia, increasing shipments to 17,500 tons in the first seven months in 2019 against 10,000 in January to July 2018. Kuibyshevazot purchased 16,900 tons this year, and the remaining volume was purchased by Shchekinoazot.

Kazakh petrochemical project at Atyrau

The second stage of the construction of the gas-chemical complex, during which it is planned to build and launch a polyethylene plant with a capacity of 1.2 million tpa of products will last from 2021 to 2024. The Ministry of Energy of the Republic of Kazakhstan, the National Welfare Fund Samruk-Kazyna and the Austrian company Borealis signed an agreement on the basic conditions for cooperation in this project. Its cost is estimated at $6.9 billion.

More than $1 billion will be spent on the construction of a gas separation unit with a capacity of 7 billion cubic metres per annum at the Tengiz field, from which raw materials will be supplied. The feasibility study of the project is scheduled for completion in 2019. Private investors are expected to implement projects for the production of polyethylene terephthalate, methanol and cyclohexane, which are at different stages of development, on the territory of the FEZ.

Navoiazot-methanol plant launch

Navoiazot aims to launch a new methanol production plant before the end of 2019, comprising 300,000 tpa in capacity. Launching the installation, according to the agency, is scheduled for October-November. When fully loaded, the installation is expected to produce around 290,000 tpa.

Turkmenistan-methanol project consortium

A consortium of European companies Edison Technologies, MMEC Mannesmann GmbH, Air Liquide Global E&C Solutions and the Chinese company SINOPEC Engineering Group have proposed an investment project for the construction of a plant for the production of methanol from natural gas in Turkmenistan.

Samarkand fertiliser plant

A new chemical complex aimed at increasing the production of fertilisers in Uzbekistan is to be built, with help from Thyssenkrupp Industrial Solutions. It is expected that the new complex will be built in the Samarkand region (pictured), on territory owned by Samarkandkimyo, and that potential output at the complex will include ammonium sulphate, urea, melamine and phosphorous-based fertilisers, with the output to be used domestically, but with the option for increased exports.

The main volume of methanol produced will be used for the production of urea-formaldehyde resins and formaldehyde. Any surplus could be exported to countries such as Kazakhstan, where it will compete with Russian producers. Kazakh consumers are currently importing from Russia about 35,000 tpa of methanol by rail. The existing facilities allow Navoiazot to produce about 1,000 tons of methanol per month, the bulk of which is shipped to local mining companies to prevent hydrate formation in wells during oil and gas production.

Besides methanol Navoiazot is investing in projects for PVC with a capacity of 100,000 tpa and caustic soda with a capacity of 75,000 tpa. Also, Navoiazot is implementing a project to build ammonia production with a capacity of 660,000 tpa and urea with a capacity of 577,500 tpa. At the end of 2019, the company plans to complete the construction of nitric acid production with a capacity of 500,000 tpa. Navoiazot is working on plans to create thiourea production at a cost of $30 million. Currently, a project feasibility study has been developed, its implementation is scheduled for 2019-2020.

Relevant Currencies

Czech crown. $1= 20.852. €1 = 27.444: Hungarian Forint. Ft. $1 = 229.253. €1 = 310.141: Polish zloty. zl. $1=3.016. €1 =4.14 Ukrainian hryvnia. $1 = 28.1 €1 = 32.6: Rus rouble. $1 = 67.6 €1= 76.8

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