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

- The PPF Splitter installation has started by Orlen Lietuva at the Mazeikiai refinery, producing another 80,000 tpa of propylene for the Orlen Group
- PKN Orlen has filed a formal application for the European Commission's approval of its proposed acquisition of Lotos Group
- Czech ethylene exports amounted to 39,800 tons in the first five months in 2019 against 37,300 tons in the same period in 2018
- Grupa Azoty ZAK has launched the production of two new phthalate free plasticizers at Kedzierzyn

Russian chemical production

- Russia's output of chemical products increased by 2.8% in the first five months in 2019
- Russian ethylene production amounted to 1.316 million tons in Jan-May 2019 versus 1.269 million tons
- Russian benzene production totalled 571,000 tons in January to May 2019, of which the largest producer was Nizhnekamskneftekhim producing 120,000 tons versus 96,900 tons in the same period in 2018
- Russia produced 1.909 million tons of methanol in January to May 2019 against 1.787 million tons in the same period in 2018

Russian chemical trade

- Russian exports of synthetic rubber amounted to 357,700 tons in the first four months in 2019 versus 345,000 tons in the same period in 2018. Revenues from synthetic rubber exports amounted to $576.2 million against $562 million in January to April 2018
- Russian propylene exports amounted to 39,000 tons in the first five months versus 46,400 tons in the same period in 2018
- PVC exports from Russia totalled 77,300 tons in the first five months of 2019, compared to 54,500 tons
- MDI imports into the Russian market rose in the first four months in 2019 to 46,600 tons from 41,200 tons in the same period last year.

Russian & regional chemical projects

- Gazprom is assessing of its LNG project at Ust Luga including of 3 million tpa of polymers
- Nizhnekamskneftekhim has embarked on the foundations for the new olefin complex
- Sberbank-AEON investment corporation to build methanol plant at Volgograd
- SAFMAR signs contract with Tecnimont for methanol project at Ust Luga
- Uzbekistan's Ministry of Energy approved a new MTO based petrochemical plant.
- Kazakhstan has outlined plans to build olefin production facilities at Aktau using MTO technology

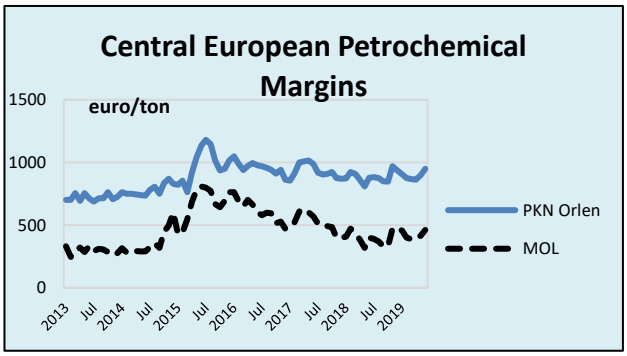
CENTRAL & SOUTH EAST EUROPE

Czech Crude Imports from Russia 2019		
Month	***Weight (tons)***	***Value (€ million)***
Jan	264,928	102.116
Feb	281,076	114.750
Mar	285,037	121.016
Apr	196,917	88.728
May	46,273	21.228

Central European oil supply

Czech imports of crude from Russia dropped sharply in May after the contamination of oil issue affected deliveries to Central Europe. Most Central European refiners have been affected by the chloride contamination problems including PKN Orlen and MOL. Although the Russian government claims that the Druzhba pipeline is now clean the East German Schwedt refinery stopped taking crude in early July due to renewed fears over contamination.

Whilst Russia strives to protect its market Poland is increasing efforts to buy crude from other sources. In August and September for instance, further crude oil cargo from Angola will go to the Orlen refinery at Płock. Moreover, as a result of increased seaborne crude oil imports, PERN has launched investments into constructing a second pipeline between Naftoport and PKN's Plock refinery and expanding its storage capacity at Gdansk by almost 600,000 cubic metres, which will increase PERN's total storage capacity to 4.1 million cubic metres. The construction of seven new tanks in Gdansk has already started. Overall Russian suppliers may not lose much market share as the pipeline system still provides the best mode of supplying crude to Central Europe, even though most countries can find alternative sources nowadays.



Central European petrochemical margins

Petrochemical margins for Orlen and MOL have stabilised in the first half of 2019 after incurring a downward trend in 2018. PKN Orlen's model downstream margin amounted to $11.4 in June 2019 against $11.5 in May and $12.4 in June 2018. Orlen's model refining margin amounted to $6.5 per barrel in June this year, compared to $7 per barrel in May and $7 in June 2018. Petrochemical margins in June for both Orlen and MOL were the highest in 2019, at €949 and €462 per ton respectively. Both groups use different methods for petrochemical margin calculation.

Slovnaft-Taneko agreement

Slovnaft has reached agreement with the Taneko refinery at Nizhnekamsk in Tatarstan for joint projects involving the production of biocomponents for motor fuels, modified road bitumen, and lubricants. Slovnaft's refinery has a capacity of 6 million tpa, in addition to 200,000 tpa of chemicals and 400,000 tpa of polyolefins.

PKN Orlen-Lotos merger

PKN Orlen has filed a formal application for the European Commission's approval of its proposed acquisition of Lotos Group. The completion of the process would result in a single strong internally integrated entity. The European Commission has started analysing the documentation regarding the merger of both companies.

PKN Orlen-heat and power plant & logistics

The increase of efficiency and power at the PKN Orlen combined heat and power plant in Płock will bring the construction of a new TG1 turbine. GE Power will be the technology supplier and contractor in turnkey mode. According to Orlen, the modernization of the TG1 turbine includes disassembly of the existing machine and construction in its place in the turnkey formula with an increased power from the current 55 to 65 MWe, along with the accompanying infrastructure.

According to the group, modernisation of TG1 in the company's combined heat and power plant will allow 10 percent. The increase in its efficiency in the field of electricity generation in combination with heat will contribute to the optimization of costs due to the extension of work cycles between repairs. It will also increase the continuity and security of electricity and heat supply for the Production Plant in Płock and companies operating in its area, and the city will also be the recipient of heat.

Electricity and heat will be produced at Elektrociepłownia Trzebinia, owned by ORLEN Południe, from clean natural gas, which will partially replace coal. This is the result of an investment worth nearly 80 million PLN. The emission of sulphur dioxide, nitrogen dioxide by another 45%, and dust by nearly 90% will be reduced by approximately 30%.

Regarding logistics, the Orlen Group will increase by the number of wagons to transport refinery and petrochemical products. The purchase procedure, including 2,000 wagons, is aimed at securing current and future logistics operations. The Płock company the proceedings include the lease of rail tankers for the needs of PKN Orlen, as well as companies from the Group Anwil, Orlen KolTrans and Unipetrol.

The Orlen Group's demand covers various types of tanks for the transport of refinery and petrochemical products, such as light / medium and heavy fractions, aviation fuel or PTA. There are various lease periods from one to seven years depending on the horizon of transport plans and the proposed terms of trade.

Polish Propylene Imports (unit-kilo tons)		
Country	***Q1 18***	***Q1 19***
Azerbaijan	1.9	0.0
Austria	0	2.3
Czech Republic	4.3	0.9
Germany	14.7	5.0
Russia	5.8	13.0
Ukraine	21.1	12.8
Slovakia	0.0	0.0
Hungary	3.1	5.1
Others	0.0	0.0
Total	51.0	39.1

Orlen Mazeikai-propylene from PPF splitter

The PPF Splitter installation has started by Orlen Lietuva at the Mazeikiai refinery, which will produce another 80,000 tpa of propylene for the Orlen Group. This is not an entirely new product for the Mazeikiai refinery where it was previously used as a fuel, but it does mark the first entry into petrochemicals. Through the latest system, the refinery transfers propylene to a separate tanker and sell it as a chemical raw material.

Propylene imports into Poland amounted to 39,100 tons in the first quarter this year against 51,000 tons in the same period in 2018. PKN Orlen has launched its metathesis installation at Płock, consisting of a capacity of 100,000 tpa and raising total propylene capacity to 550,000 tpa. The metathesis installation was created on the basis of a license from Lummus Technology. The budget of the entire project was about zl 400 million. Polish company Elektrobudowa was responsible for the design and construction of the turnkey system, although start-up was delayed due to commissioning issues.

Serbian Chemical Exports (unit-kilo tons)		
Product	**Jan-Apr 19**	***Jan-Apr 18***
Polyethylene	30.9	41.4
Polypropylene	4.3	6.0
Styrene Butadiene Rubber	5.7	6.0
Methanol	31.9	36.7
Acetic Acid	22.7	36.3

NIS-Petrohemija privatisation and integration

Serbian refining group NIS, owned by Gazprom Neft is keen to take over HIP-Petrohemija at Pancevo, partly due to improve functional integration between the refinery and the petrochemical complex and partly to diversify away from the fuel and energy sector.

Plans to integrate the two divisions were under the radar in the early 1990s but failed to materialise. Petrohemija is smaller now but still represents an opportunity for NIS to develop petrochemicals. Propylene capacity for example could be expanded to around 200,000 tpa from refinery-petrochemical integration, thus enabling the construction of a polypropylene plant. The advantages for Petrohemija stem mainly from feedstocks; naphtha accounts for 60-75% of the company's total raw material costs

Czech Petrochemical Exports (unit-kilo tons)		
Product	***Jan-May 19***	***Jan-May 18***
Ethylene	39.8	37.3
Propylene	2.9	7.4
Butadiene	2.0	0.2
Benzene	28.7	15.5
Toluene	5.8	7.4
Ethylbenzene	67.2	59.3

If NIS does not emerge as the future owner of Petrohemija it will at minimum act as a key supplier of raw materials. This is crucial because NIS is now co-owner in Petrohemija, holding around 21%. Petrohemija has performed relatively well over the past few years due to improvements in operational efficiency and continues to invest in modernisation. Around €8.5 million is being invested into the expansion of HDPE capacity by 20,000 tpa. This expansion should be completed by October 2019, with equipment from Coperion undergoing installation at Pancevo. Also, at the HDPE

plant €1.1 million was invested in the activation of catalysts, whilst another €2 million was invested in the LDPE plant with equipment from Siemens.

Czech petrochemical exports, Jan-May 2019

Czech ethylene exports amounted to 39,800 tons in the first five months in 2019 against 37,300 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 67,200 tons in January to May versus 59,300 tons. Propylene exports amounted to 2,900 tons in January to May 2019 against 7,400 tons in 2018.

Czech Methanol Imports (unit-kilo tons)		
Country	***Jan-May 19***	***Jan-May 18***
Germany	6.4	13.4
Norway	4.9	6.0
Russia	19.6	15.4
Slovakia	0.0	1.1
Poland	2.1	1.2
Others	1.2	0.3
Total	34.2	37.4

Czech polyethylene exports totalled 135,567 tons in the first five months in 2019 against 147,317 tons in the same period in 2018, whilst imports rose from 136,799 tons to 164,818 tons. Imports of polypropylene totalled 217,604 tons in the first five months this year against 215,317 tons in January to May 2018, whilst exports slipped from 125,017 tons to 118,017 tons.

Czech chemical trade, Jan-May 2019

Methanol imports into the Czech Republic totalled 27,400 tons in the first five months in 2019 against 34,200 tons in the same period in 2018. Russia supplied 19,610 tons of methanol to the Czech market in the five months for €6.037 million, whilst Germany supplied 6,370 tons for €2.256 million.

Czech MDI Imports (unit-kilo tons)		
Country	***Jan-May 19***	***Jan-May 18***
China	0.3	1.0
Belgium	3.0	2.2
Germany	4.7	3.0
Italy	0.1	0.1
Hungary	2.1	3.7
Netherlands	0.4	0.5
Others	0.2	1.8
Total	10.8	12.1

TDI imports amounted to 3,722 tons in the five months in 2019 at a cost of €10.125 million, down from 5,912 tons in the same period in 2018 at a total cost of €17.347 million. The largest source of supply in the first quarter was Germany with 1,576 tons at a cost of €3.102 million. Regarding DINP plasticizers, imports of shipments totalled 5.353 tons in the first five months this year at a total cost of €6.688 million against 4,814 tons in January to May 2019 for a total cost of €5,866.

Polish Chemical Production (unit-kilo tons)		
Product	***Jan-May 19***	***Jan-May 18***
Caustic Soda Liquid	145.6	114.9
Caustic Soda Solid	24.5	60.7
Ethylene	220.0	175.0
Propylene	184.0	147.2
Butadiene	28.5	19.1
Toluene	5.5	5.9
Phenol	18.7	19.8
Caprolactam	73.6	72.7
Acetic Acid	2.9	7.5
Polyethylene	159.6	166.6
Polystyrene	27.9	27.0
EPS	44.2	27.7
PVC	123.0	112.0
Polypropylene	144.9	116.4
Synthetic Rubber	119.5	114.3
Ammonia (Gaseous)	1136.0	1171.0
Ammonia (Liquid)	42.9	62.0
Pesticides	22.7	22.8
Nitric Acid	1040.0	1023.0
Nitrogen Fertilisers	908.0	877.0
Phosphate Fertilisers	205.3	172.5

Exports of DINP plasticizers totalled 17,315 tons in the first five months in 2019 at a total cost of €20 million against 16,988 tons in the same period last year for €19.878 million. Maleic anhydride imports dropped from 1,017 tons in January to May 2018 at a cost of €1.31 million to 946 tons at a cost of €1.183 million.

Phthalic anhydride exports from the Czech Republic amounted to 6,445 tons in the first five months in 2019 for €6.231 million, down from 7,415 tons for €6.348 million. Caprolactam exports dropped slightly to 19,008 tons in the first five months in 2019 against 20,004 tons in the same period in 2018.

Grupa Azoty ZAK-production of new plasticizers

Grupa Azoty ZAK at Kedzierzyn-Kozle has introduced Adoflex and Oxovilen specialist plasticisers as part of the development of a range of non-phthalate specialty products. Previously, the company developed and implemented the first Polish plasticizer, non-phthalate Oxoviflex. Adoflex and Oxovilen are manufactured on a new multifunctional installation with a capacity of 10,000 tpa. Co-financing from the European Regional Development Fund supported the project for Grupa Azoty ZAK for non-phthalate plasticizers.

Russia

Russian Chemical Production (unit-kilo tons)		
Product	***Jan-May 19***	***Jan-May 18***
Caustic Soda	535.0	523.5
Soda Ash	1,427.0	1,482.0
Ethylene	1,316.4	1,269.0
Propylene	1,044.0	958.1
Benzene	571.0	578.0
Xylenes	249.8	265.0
Styrene	326.2	308.3
Phenol	95.0	82.0
Ammonia	7,800.0	7,800.0
Nitrogen Fertilisers	5,005.0	4,685.0
Phosphate Fertilisers	1,753.0	1,700.0
Potash Fertilisers	3,649.0	3,603.0
Plastics in Bulk	3,497.0	3,410.0
Polyethylene	947.0	932.0
Polystyrene	227.9	226.7
PVC	444.4	420.2
Polypropylene	632.1	636.0
Polyamide	65.4	72.9
Synthetic Rubber	661.0	716.0

Russian chemical production, Jan-May 2019

Russia's output of chemical products increased by 2.8% in the first five months in 2019. Ethylene production increased by 4% to 1.318 million ton, including 262,000 tons in May and 263,000 tons in April. Russian propylene production amounted to 1.044 million tons in the first five months in 2019 against 958,100 tons in the same period last year.

Benzene production amounted to 571,000 tons in the first five months of 2019 against 578,000 tons, whilst Russian xylene production totalled 249,800 tons in January to May 2019 against 265,000 tons in the same period in 2018. Production of caustic soda rose to 535,000 tons in the first five months versus 525,000 tons a year earlier. Russian polymer production in amounted to 3.497 million tons in the first five 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 five months in 2019.

Russian organic chemical trade 2013-2018

The trade export-import balance in Russian organic chemicals and chemical products achieved parity in 2018 at $4.1 billion for products going in and out of the country.

For export revenues of $4.1 billion from organic chemical products in 2018, Russia shipped 6.177 million tons of products whilst for the same import costs of $4.1 billion volumes totalled 1.410 million tons. In effect, export prices on average amounted to $673.5 per ton whilst imports averaged $2900.7 per ton.

Russian Organic Chemical Trade						
$ billion	***2013***	***2014***	***2015***	***2016***	***2017***	***2018***
Exports	4.6	4.5	3.0	2.4	3.2	4.1
Imports	3.3	3.1	2.7	2.7	3.5	4.1
Ktons	***2013***	***2014***	***2015***	***2016***	***2017***	***2018***
Exports	5355	5606	5850	5890	5645	6117
Imports	1282	1199	1138	1281	1394	1410
Average price $ per ton	***2013***	***2014***	***2015***	***2016***	***2017***	***2018***
Exports	859.0	802.7	507.7	400.7	574.0	673.5
Imports	2597.5	2577.1	2328.6	2115.5	2525.1	2900.7

The significant difference in export and import prices helps to explain the current status of the Russian chemical industry and the preoccupation with commodities.

Methanol, for example. is a key export commodity where shipments totalled 1,826 tons in 2018 for a total cost of $601 million. This can be compared with imports of TDI which totalled 49,600 tons in 2018 for costs of $168 million, or lysine imports which totalled 84,600 tons for costs of $111 million and methyl chlorosilane imports which totalled 37,700 tons for costs of $123 million.

Oleochemicals, fine and speciality chemicals are all product groups where Russia is import-dependent either due to availability or quality or issues, whilst in the commodity sector imports are largely driven by exceptional such factors as plant modernisation or geographical advantage where it is easier to import than buy from domestic sources.

Russian petrochemical producer performance

Baltic Chemical Complex-olefin and polyolefins

Gazprom is undertaking assessment of its LNG project at Ust Luga, which includes development of the Baltic Gas-Chemical Complex that could include the production of 3 million tpa of polymers. The project envisages the construction of a gas processing plant at Ust Luga on the Baltic coast, an LNG plant combined with a gas-chemical complex. Basic design is scheduled to begin in spring 2020, with the aim to obtain permits for construction in the period from June to August 2020.

The volume of purchases of Russian equipment and services for the integrated project of the gas-chemical complex in Ust-Luga will amount to around 900 billion roubles of which 80% will be devoted to equipment. The facilities of the complex are expected to process ethane-containing gas from the Achimov and Valanginian deposits of the Nadym-Pur-Tazav region with the subsequent production of up to 4 million tpa of ethane and 2.2 million tpa of liquefied hydrocarbon gases (LPG). The remaining volume of gas (about 20 billion cubic metres) will be sent to the gas transmission system of Gazprom.

Gazprom's Ust Luga Investments

- LNG-13 million tpa
- Ethane-4 million tpa
- Propane-butane, 2.2 million tpa
- Polymers-3 million tpa

The launch of the first stage is scheduled for 2023, and the second by the end of 2024. The project operator is the special purpose company RusHimAlyans LLC, created on a parity basis by Gazprom and RusGazDobicha. Funding for the project could be provided by Russian banks VTB, VEB, Gazprombank and even the National Welfare Fund. The total capacity of the complex for raw materials will be 45 billion cubic metres of gas from the fields Nadym-Pur-Taza. Gazprom plans to produce 13 million tpa of LNG, 4 million tpa of ethane and 2.2 million tpa of propane-butane.

Shell decided to withdraw from the Baltic LNG project due to the plan to build integrated petrochemical facilities at the same complex. Shell was discussing the initial concept which was to separate LNG project from the chemical plant, but the two have now merged making it non-acceptable to continue participation. Gazprom is still hoping to use Shell technologies for LNG, but Shell only uses the technologies on projects in which it is involved.

ZapSibNeftekhim-commissioning underway

Construction of the ZapSibNeftekhim complex at Tobolsk has now been completed and commissioning has started. From the middle of 2019 the number of workers at the site has started to fall which could mean only around 10,000 remaining at the end of July, which will subsequently drop to several thousand by the autumn. Dismantling of scaffolding from the complex and landscaping around the site started in July.

Regarding the commissioning process, the first granules of polyethylene and polypropylene have already been obtained whilst the ethylene cracker is expected to start in the fourth quarter this year.

ZapSibNeftekhim-impact on plastics production in Russia

After commissioning the ZapSibNeftekhim plant, there are some interesting forecasts circulating that the demand for LLDPE and HDPE in Russia could rise by around 10% in 2020 which would mean domestic consumption rising to something in the range of 1.538 million tons. At the same time, the exports of polyethylene could increase significantly from the current volume of 150,000 tpa whilst the surplus in the Russian polypropylene market could double up to 600,000 tons. Although medium term and long-term forecasts for virgin polymer are difficult to predict, the main thing to note from the ZapSibNeftekhim complex is that only those brands that are not planned to be produced now will be imported into Russia.

Nizhnekamskneftekhim-new ethylene cracker & other investments

Nizhnekamskneftekhim has embarked on the foundations for the new olefin complex where the cost of construction (including polymer production) is estimated at 234.2 billion roubles $3.678 billion). The project involves the construction of an EP-600 complex for the production of ethylene with the production of polymers with a capacity of 700,000 tpa. The complex will produce 600,000 tpa of ethylene, 270,000 tpa of propylene, 248,000 tpa of benzene and 89,000 tpa.

The new olefin complex will include its own local treatment facilities. The wastewater generated during the process will be purified and returned to the process, which will minimize the environmental impact of production and reduce the consumption of clarified

river water from the Kama river. Also, the chemically contaminated drains of the complex will be delivered to the local treatment facilities and will be cleaned. Rain and melt water from the installation, not polluted with hydrocarbons, is sent to existing treatment facilities.

Russian Ethylene Production (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Angarsk Polymer Plant	94.0	96.5
Kazanorgsintez	274.8	253.9
Stavrolen	139.9	139.7
Nizhnekamskneftekhim	272.1	267.0
Novokuibyshevsk Petrochemical	28.0	22.8
Gazprom n Salavat	159.1	159.5
SIBUR-Kstovo	157.3	136.5
SIBUR-Khimprom	23.5	22.0
Tomskneftekhim	114.9	119.4
Ufaorgsintez	52.9	51.8
Total	1316.4	1269.3

Russian petrochemical markets

Russian ethylene ne production, Jan-May 2019

Russian ethylene production amounted to 1.316 million tons in the first five months in 2019 versus 1.269 million tons in the same period in 2018. Kazanorgsintez produced 272,100 tons in January to May 2019 against 253,900 tons in the same period last year whilst Nizhnekamskneftekhim produced 272,100 tons against 267,000 tons. Other important producers included SIBUR-Kstovo which produced 157,300 tons versus 136,500 tons and Gazprom neftekhim Salavat which produced 159,100 tons against 159,500 tons.

Russian ethylene prices started 2019 at low levels after dipping at the end of last year, but then rose from $532 per ton in January to $630 per ton in May. At the start of the fourth quarter in 2018 prices had increased to $733 per ton before softening. Current trends suggest a weakening in prices from the May level of $630 per ton. Regarding feedstock delivery, 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.

Russian Propylene Production (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Angarsk Polymer Plant	51.9	54.0
Kazanorgsintez	21.9	17.1
Lukoil-NNOS	126.0	120.5
Stavrolen	55.8	56.2
Nizhnekamskneftekhim	137.7	136.6
Novokuibyshevsk Petrochemical	59.0	17.0
Omsk Kaucuk	16.1	21.5
Polyom	80.1	79.2
Gazprom n Salavat	71.5	69.5
SIBUR Kstovo	69.2	60.5
SIBUR-Khimprom	28.7	27.6
Tomskneftekhim	61.4	64.1
SIBUR Tobolsk	184.2	161.8
Ufaorgsintez	80.7	72.5
Total	1044.0	958.1

Russian Propylene Domestic Sales (unit-kilo tons)		
Company	***Jan-May 19***	***Jan-May 18***
Angarsk Polymer Plant	36.3	43.2
SIBUR-Kstovo	54.8	59.2
Akrilat	2.4	5.0
LUKoil-NNOS	87.9	92.7
Gazprom Neftekhim Salavat	4.6	1.6
SIBUR Tobolsk	0.1	0.3
Total	186.1	184.1

Russian propylene production & sales, Jan-May 2019

Russian propylene production amounted to 1,044,000 tons in the first five months in 2019 against 958,100 tons in the same period last year. SIBUR-Tobolsk increased production to 184,200 tons against 161,800 tons in the first five months in 2018. Nizhnekamskneftekhim produced 137,700 tons against 136,600, whilst Lukoil-NNOS produced 126,000 tons against 120,500 tons.

Russian sales of propylene on the domestic merchant market amounted to 186,100 tons in the first five months in 2019 against 184,100 tons in the same period in 2018. Lukoil-NNOS at Kstovo shipped 87.900 tons to the domestic market in the first five months against 92,700 tons in 2018, SIBUR-Kstovo shipped 54,800 tons to the merchant market against 59,200 tons and Angarsk Polymer Plant reduced shipments from 43,200 tons to 36,300 tons.

The largest merchant consumer of propylene in Russia, acrylonitrile producer Saratovorgsintez, purchased 80,200 tons in the first five months against 80,900 tons in the same period in 2018. The

second largest merchant consumer is SIBUR Tobolsk which purchased 38,400 tons in January to May 2019 versus 30,100 tons in the same period in 2018.

Rosneft and China's Manzhouli Far East Gas have signed an agreement of intent on cooperation in the field of propylene and various types of LPG cooperation. This establishes the intentions of the parties to assess the prospects for the organization of transhipment of LPG and through a terminal located at the Zabaykalsk-Manchuria border crossing.

Russian Propylene Exports (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Lukoil-NNOS	22.0	37.0
SIBUR-Kstovo	6.1	4.6
Stavrolen	10.8	4.7
Total	39.0	46.4

Russian propylene exports amounted to 39,000 tons in the first five months versus 46,400 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 were sent to Belarus and Poland, although in recent months volumes to Poland have declined due to competition from Karpatneftekhim in Ukraine.

Russian Styrene Exports (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Angarsk Polymer Plant	6.8	1.9
Plastik Uzlovaya	0.2	3.1
Gazprom neftekhim Salavat	54.4	41.9
Nizhnekamskneftekhim	0.2	0.0
SIBUR-Khimprom	1.0	2.8
Total	62.6	49.6

Russian styrene production & sales, Jan-May 2019

Russia produced 352,200 tons of styrene in the first five months in 2019 which is 3% more than in the same period in 2018. Gazprom neftekhim Salavat increased styrene production by 9% to 101,200 tons, followed by SIBUR-Khimprom at Perm where production increased from 38,900 tons to 59,400 tons.

Styrene exports from Russia increased to 62,600 tons in the first five months in 2019 against 49,600 tons in the same period in 2018. Gazprom neftekhim Salavat shipped 54,400 tons in the first five months against 41,900 tons, whilst Angarsk Polymer Plant shipped 1,900 tons this year against 6,800 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-May 19***	***Jan-May 18***
Angarsk Polymer Plant	8.8	4.7
Plastik	0.1	9.0
Gazprom n Salavat	21.1	17.4
SIBUR-Khimprom	19.2	10.4
Nizhnekamskneftekhim	0.5	3.8
Total	49.7	45.3

Styrene sales on the Russian domestic merchant market totalled 49,700 tons in January to May 2019 against 32,300 tons in the same period in 2018, with Gazprom neftekhim Salavat increasing shipments from 17,400 tons to 21,100 tons and SIBUR-Khimprom increasing shipments from 10,400 tons to 19,200 tons. SIBUR-Khimprom uses styrene for the production of expandable polystyrene. Main Russian consumers for merchant styrene include Styrovit and rubber producers such as Voronezhsintezkaucuk.

Bulk Polymers

Russian HDPE Production (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Kazanorgsintez	229.0	219.1
Stavrolen	126.9	127.7
Nizhnekamskneftekhim	0.0	17.7
Gazprom n Salavat	50.0	49.4
Total	408.9	413.9

Russian HDPE production Jan-May 2019

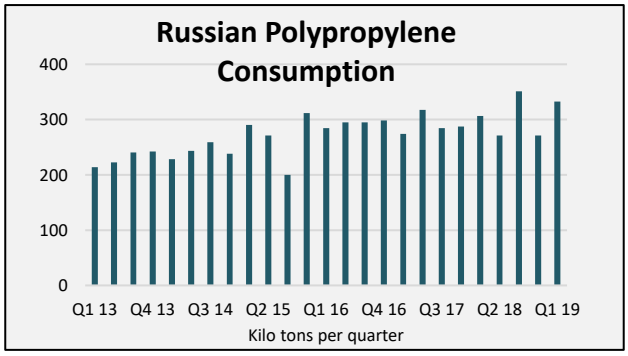
Russian HDPE production amounted to 408,200 tons in the first five months in 2019, against 413,900 tons in the same period in 2018. Kazanorgsintez increased production by 5.4% to 229,000 tons, whilst Stavrolen dropped 1% to 126,900 tons. Gazprom neftekhim Salavat produced 50,000 tons of HDPE in the first five months 2019 which is 1% 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.

Russian Polypropylene Production (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Ufaorgsintez	53.4	55.0
Stavrolen	45.2	49.8
Moscow NPZ	61.5	55.8
Nizhnekamskneftekhim	87.3	88.1
Polyom	89.7	92.1
Tomskneftekhim	62.4	61.5
SIBUR Tobolsk	207.5	186.0
Total	607.0	588.3

Russian polypropylene production & trade, Jan-May 2019

Polypropylene production at Russian plants decreased by 3.3% in the first five months to 607,000 tons. SIBUR-Tobolsk increased production by 12% to 207,500 tons, whilst Polyom at Omsk reduced the production of propylene polymer by 3% to 89,700 tons. Stavrolen reduced polypropylene production to 45,200 tons against 49,800 tons in the first five months in 2018 and Nizhnekamskneftekhim produced 87,300 tons of polypropylene, which is 1% lower than last year. Tomskneftekhim produced 62,400 tons of polypropylene, an increase of 1%. Ufaorgsintez dropped 1% to 53,400 tons and NPP Petrochemistry (Neftekhimya) increased by 10% to 61,500 tons

Polypropylene imports into Russia slumped in the first five months of 2019 by 7% to 74,200 tons. Imports of homopolymer PP to Russia totalled 25,400 tons in the first five months of 2019, compared to 28,700 tons a year earlier. Imports of PP block copolymers into Russia reached 21,200 tons in January-May 2019, compared to 20,000 tons a year earlier.



Total imports of PP random copolymers in Russia comprised 13,100 tons in January-May 2018, compared with 13,800 tons. Russia's imports of other polymers of propylene for the period amounted to 14,500 tons in the first five months of the year, compared with 16.900 tons in 2018.

Russian PVC production & trade, Jan-May 2019

Russian PVC production increased by 6% over January-May 2019 to 422,900 tons compared to 400,700 tons in the same period last year. RusVinyl produced 140,700 tons of PVC, up by 11%. Sayanskkhimplast produced 135,700 tons against 122,800 tons whilst Bashkir Soda increased production from 111,400 tons to 114,900 tons. Kaustik at Volgograd reduced production by 19.5% to 31,800 tons. Sayanskkhimplast started a one-month shutdown in July for planned maintenance.

Russian PVC Production (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 19***
Bashkir Soda	114.9	111.4
Kaustik	31.8	39.5
RusVinyl	140.5	127.0
Sayanskkhimplast	135.7	122.8
Total	422.9	400.7

PVC exports from Russia totalled 77,300 tons in the first five months of 2019, compared to 54,500 tons. Some producers significantly reduced their exports in June under the pressure of stronger demand from the domestic market and scheduled shutdowns for maintenance at a number of production capacities. Sufficient supply of PVC from domestic producers, even given high exports, and weak demand from converters led to lower imports which totalled 7,900 tons for the first five months compared to 9,700 tons.

Aromatics

Russian Paraxylene Domestic Sales (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Gazprom Neft	0.0	21.4
Ufaneftekhim	48.7	50.3
Kinef, Kirishi	0.0	0.0
Total	48.7	58.8

Russian paraxylene domestic sales, Jan-May 2019

Due to reduced PTA production at Blagoveshchensk paraxylene sales on the Russian domestic market dropped in the first five months from 58,800 tons in 2018 to 48,700 tons in the same period in 2019.

Whilst Ufaneftekhim reduced shipments to Polief from 50,300 tons in the first five months in 2018 to 48,700 tons in 2019, Gazprom Neft did not ship any volumes in the first five 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-May 19***	***Jan-May 18***
Gazprom Neft	30.9	45.0
Ufaneftekhim	9.7	25.3
Kirishinefteorgsintez	8.7	14.0
Total	49.3	84.3

Following the process of modernisation Polief will increase the consumption of paraxylene by 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 by 78,000 tpa to 350,000 tpa. The modernisation and expansion at Blagoveshchensk started on 6 February and were completed in June. During the third quarter, the installation will gradually reach its design capacity.

SIBUR's paraxylene purchases from Russian refineries amounted to 176,386 tons in 2018 against 177,061 tons in 2017. Prices for paraxylene purchases from Ufaneftekhim and Gazprom Neft rose on average to €644 per ton in 2018 against €508 per ton in 2017. In January-May 2019, Russian exports of paraxylene increased by 22,100 tons to 102,600 tons. The largest exporter is the Gazprom Neft at the Omsk refinery, which increased shipments abroad by 14,000 tons over the same five months in 2018 to 68,000 tons.

Russian PTA imports, Jan-Apr 2019

PTA imports into Russia totalled 148,400 tons in the first four months in 2019 against 76,900 tons in the same period in 2018. China increased shipments to Russia to 106,000 tons in January to April 2019 against 37,700 tons in the same period last year whilst South Korea increased deliveries from 23,900 tons to 27,400 tons. Thailand supplied 3,000 tons of PTA to Russia in January-April 2019 versus 9,000 tons in the same period in 2018.

Russian PTA Imports (unit-kilo tons)		
Country	***Jan-Apr 19***	***Jan-Apr 18***
Belgium	10.0	1.6
India	1.0	4.8
China	106.0	37.7
South Korea	27.4	23.9
Poland	1.0	0.0
Thailand	3.0	9.0
Total	148.4	76.9

The cost of imported PTA in the first four months in 2019 amounted to $132 million against $58 million last year. Alko-Naphtha in Kaliningrad accounted for 71% of imports. In January-April 2019, PET consumption in Russia increased by 15% compared to the same period in 2018 and amounted to 238,530 tons.

Russian Benzene Production (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Rosneft	60.5	69.7
Gazprom Neft	34.7	49.2
Lukoil	36.1	48.8
Magnitogorsk MK	22.4	22.8
Nizhnekamskneftekhim	120.0	96.9
Novolipetsk MK	4.7	2.6
Gazprom Neftekhim Salavat	80.7	70.2
Kirishinefteorgsintez	34.8	29.8
Slavneft	21.7	29.3
Severstal	15.3	15.6
Bashneft	39.1	40.0
Ural Steel	4.1	3.3
Uralorgsintez	34.1	37.4
Zapsib	32.5	31.9
SIBUR	30.2	30.5
Total	571.0	578.0

Russian benzene production-sales, Jan-May 2019

Russian benzene production totalled 571,000 tons in January to May 2019, of which the largest producer was Nizhnekamskneftekhim producing 120,000 tons versus 96,900 tons in the same period in 2018. At the end of last year, Nizhnekamskneftekhim increased the production capacity of benzene to 265,000 tpa.

Rosneft's three plants at Angarsk, Novokuibyshevsk and Ryazan produced a combined total of 60,500 tons against 69,700 tons. Gazprom Neft at Omsk reduced benzene production from 49,200 tons to 34,700 tons.

Benzene sales on the Russian domestic merchant market amounted to 323,900 tons in the first five months in 2019 against 367,300 tons in January to May 2018. One of the factors explaining the fall in consumption is 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.

Gazprom neftekhim Salavat began scheduled maintenance work at the monomer plant on 1 July and is expected to restart on 1 August. During this period, Gazprom neftekhim Salavat will not produce styrene and significantly reduce the production of benzene. From 20 June 20 to 1 August, scheduled maintenance work on the pyrolysis unit will be carried out at the Angarsk Polymer Plant. During this period, the company will not ship benzene, propylene and C4s to the market. Also, the volume of ethylene supplies through the Sayanskhimplast product pipeline will be reduced. Angarsk Polymer Plant includes production capacities of 300,000 tpa for ethylene, 139,600 tpa for propylene and 120,000 tpa for benzene.

The largest individual buyer of benzene on the Russian market remains Kuibyshevazot, followed by other caprolactam producers and then styrene and phenol producers. The largest supplier to the domestic merchant market in the first quarter was Ufaorgsintez, shipping 21,600 tons which was the same as in 2018. Gazprom Neft at the Omsk refinery reduced merchant sales from 46,900 tons in January to May 2018 to 33,400 tons in the same period this year, whilst SIBUR-Kstovo reduced slightly from 30,400 tons to 28,100 tons.

Russian Caprolactam Production (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Kuibyshevazot	81.3	91.0
Shchekinoazot	21.6	22.4
SDS Azot	50.3	55.7
Total	153.1	169.2

The three Russian caprolactam producers remain the largest domestic merchant consumers of benzene, followed by styrene and phenol producers. Russian caprolactam production amounted to 153,100 tons in January to May 2019 against 169,200 tons in January to May 2018. Kuibyshevazot reduced production from 91,000 tons to 81,300 tons whilst SDS Azot at Kemerovo dropped to 50,300 tons from 55,700 tons.

Russian Xylene Production (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Gazprom Neft	111.4	124.2
Kirishinefteorgsintez	48.0	49.6
Ufaneftekhim	90.3	91.2
Total	249.8	265.0

Russian orthoxylene market, Jan-May 2019

Russian xylene production totalled 249,800 tons in January to May 2019 against 265,600 tons in the same period in 2018. Gazprom Neft at the Omsk refinery reduced xylene production from 124,200 tons to 111,400 tons, Ufaneftekhim dropped slightly from 91,200 tons to 90,300 tons and Kirishinefteorgsintez produced 48,000 tons against 49,600 tons.

Russian Orthoxylene Purchases (unit-kilo tons)		
Consumer	***Jan-May 19***	***Jan-May 18***
Kamteks-Khimprom	35.3	35.2
Gazprom neftekhim Salavat	5.7	3.2
Others	21.3	23.4
Total	62.3	61.8

Orthoxylene sales on the Russian domestic market amounted to 62,300 tons in January to May 2019 against 61,800 tons in same period last year. Kamteks-Khimprom remains the largest buyer in Russia, purchasing 35,300 tons in the period January to May 2019 against 35,200 tons in the same period in 2018. Gazprom neftekhim Salavat increased purchases from 3,200 tons to 5,700 tons whilst other buyers were smaller volume and came from a broad range of applications.

Russian Orthoxylene Exports (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Gazprom Neft	2.7	15.1
Ufaneftekhim	11.9	15.3
Kirishinefteorgsintez	13.2	3.4
Total	27.7	33.9

Orthoxylene exports from Russia totalled 27,710 tons in the first five months in 2019 against 33,890 tons in the same period last year. Kirishinefteorgsintez increased exports from 3,440 tons to 13,190 tons and Gazprom Neft reduced shipments from 15,100 tons to 2,700 tons.

Russian Phenol Production (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Ufaorgsintez	31.8	24.3
Kazanorgsintez	32.2	31.2
Novokuibyshevsk Petrochemical	31.0	26.5
Total	95.0	82.0

Russian phenol market, Jan-May 2019

Russian phenol production rose in the first five months in 2018 from 82,000 tons in 2018 to 95,000 tons in the same period in 2019. Novokuibyshevsk Petrochemical increased production from 26,500

tons to 31,000 tons whilst Ufaorgsintez increased production from 24,300 tons to 31,800 tons. Kazanorgsintez produced 32,200 tons versus 31,200 tons.

Russian Market Phenol Sales by Supplier (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Novokuibyshevsk Petrochemical	23.4	19.2
Kazanorgsintez	1.7	3.2
Ufaorgsintez	26.2	20.0
Borealis	1.0	2.6
Total	52.3	45.0

Sales of phenol on the Russian domestic market rose in the first five months from 45,000 tons to 52,300 tons. The two largest suppliers were Novokuibyshevsk Petrochemical and Ufaorgsintez. The largest consumers are focused on the production of resins.

GC Titan plans to start commissioning work on the production of phenol and acetone in September 2019 after delaying the restart from May or June 2019. Omsk Kaucuk continues to accept technological equipment for the production of cumene. The project for the reconstruction of cumene production at the Omsk Kaucuk plant assumes an increase in the volume of production by around 33%. A special feature of the reconstruction involves the transfer of production to a more modern and environmentally friendly alkylation process on a zeolite catalyst.

The modernisation and expansion 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-May 19***	***Jan-May 18***
Omsk Kaucuk	24.9	26.0
Nizhnekamskneftekhim	87.7	69.5
SIBUR Togliatti	88.6	81.5
Total	201.2	177.0

Russian C4s, Jan-May 2019

C4 sales on the domestic market in Russia totalled 201,200 tons in the first five months in 2019 against 177,000 tons in the same period in 2018. SIBUR Togliatti increased merchant purchases of C4s from 81,500 tons to 88,600 tons, whilst Nizhnekamskneftekhim increased purchases from 69,500 tons to 87,700 tons and Omsk Kaucuk dropped from 26,000 tons to 24,900 tons.

The main suppliers in the first five months included SIBUR-Kstovo which shipped 39,400 tons against 35,800 tons in the same period in 2018. Tomskneftekhim shipped 36,300 tons versus 27,000 tons and Stavrolen dropped from 32,000 tons to 29,400 tons. Gazprom neftekhim Salavat supplied a total of 20,300 tons of C4s to Nizhnekamskneftekhim and SIBUR Togliatti, against no activity in the same period last year.

Voronezhsintezkaucuk Exports (unit-kilo tons)		
Product	***Jan-Apr 19***	***Jan-Apr 18***
Polybutadiene	21.7	23.4
SBR	20.0	22.0
Others	13.8	0.0
Total	55.5	45.3

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 production of thermoplastic elastomers (TEP) 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.

Also, on the Voronezh site of the company is scheduled modernisation of the production of butadiene rubbers (SKD-ND) under which the company will increase the capacity to 48,000 tpa. The project is scheduled for completion in 2021.

Nizhnekamskneftekhim rubber exports (unit-kilo tons)		
Category	*Jan-Apr 19*	*Jan-Apr 18*
Isoprene Rubber	76.0	70.2
Butyl Rubber	23.9	25.6
HBR	48.1	46.6
Polybutadiene	60.7	59.8
Total	208.7	202.2

Nizhnekamskneftekhim-divinyl rubber project

Nizhnekamskneftekhim has started mounting metal structures for the construction of a new plant for divinyl styrene rubber (DSSK) which will have a capacity of 60,000 tpa. The plant is expected to be ready for start-up in 2020. Divinyl-styrene synthetic rubber is used in the rubber and shoe industry, in the manufacture of conveyor belts. It is also used in the production of environmentally friendly "green tyres", which have good wear resistance, frost resistance and dynamic endurance. The company's plans include the production of five grades of divinyl styrene rubber, which will allow to close the needs of consumers of tyres of any type and produce rubber of the fifth generation.

Russian Synthetic Rubber Exports 2019 (unit-kilo tons)				
Country	*Jan*	*Feb*	*Mar*	*Apr*
China	13.6	12.4	11.6	12.1
Poland	8.8	9.3	11.3	8.9
Hungary	8.2	5.9	8.2	5.5
India	8.7	7.8	6.8	7.6
US	8.7	4.4	5.9	4.4
Mexico	4.5	5.3	5.7	3.8
Turkey	3.5	4.8	5.6	4.7
Slovakia	3.7	3.7	3.8	4.2
Romania	3.5	3.5	4.1	4.8
Brazil	2.4	3.5	2.9	2.3
Czech	2.6	2.6	3.2	3.2
Germany	2.9	3.2	2.6	3.0
Belarus	3.1	2.6	2.3	3.1
Ukraine	1.1	1.2	1.8	2.1
Others	16.2	15.7	16.9	19.0
Total	91.5	85.7	92.7	88.8

Nizhnekamskneftekhim-catalyst production

The new catalyst production KDI-M at Nizhnekamsk should meet the full requirements of the existing production facilities of Nizhnekamskneftekhim for dehydrogenation. The construction of a new catalyst plant with a capacity of 3,000 tpa started in 2016 as part of an investment project to increase the production of isoprene rubber SKI-3 to 330,000 tpa.

The first batch of a new catalyst at the oligomer and glycol plant was received six months ago. The company has been producing this type of catalyst for several years, but it was not enough to cover all the needs of Nizhnekamskneftekhim. Microspherical chromium alumina catalyst KDI-M is used in the process of dehydrogenating isobutane to isobutylene, leading to the production of isoprene rubber. Nizhnekamsk KDI-M is characterized by increased activity and selectivity, provides a more stable yield of the product. The new production of KDI-M catalyst allowed Nizhnekamskneftekhim to abandon the need to purchase this product from other manufacturers and meet the needs of its own units.

Russian Synthetic Rubber Exports (unit-kilo tons)		
Product	*Jan-Apr 19*	*Jan-Apr 18*
E-SBR	15.7	10.0
Block	13.8	9.3
SSBR	5.0	2.7
SBR	30.3	32.5
Polybutadiene	82.2	82.5
BR	45.0	41.8
HBR	47.5	46.3
NBR	12.7	11.3
Isoprene	94.6	95.5
Others	10.8	13.0
Total	357.7	345.0

Russian synthetic rubber exports, Jan-Apr 2019

Russian exports of synthetic rubber amounted to 357,700 tons in the first four months in 2019 versus 345,000 tons in the same period in 2018. Revenues from synthetic rubber exports amounted to $576.2 million against $562 million in January to April 2018.

The highest value product category exported from Russia is halogenated butyl rubber (HBR) where exports totalled 47,484 tons in the first four months in 2019 at a total value of $112.7 million. Polybutadiene exports from Russia amounted to 82.250 tons in the first four months in 2019 at a value of $134.383 million and isoprene rubber exports totalling 94,268 tons for $112,771 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 four months, accounting for 13% of sales. This was followed by Poland with 10.8%, after which came Hungary with 8.9%.

Russian Market Balance for Methanol 2019					
	Jan	*Feb*	*Mar*	*Apr*	*May*
Production	402.5	376.6	414.6	373.9	339.0
Exports	183.1	161.5	191.1	195.1	181.9
Domestic Sales	135.0	110.7	136.9	107.2	120.8
Captive/Inventory	84.4	104.4	86.7	71.6	36.2

Russian Methanol Production (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Shchekinoazot	390.3	188.4
Sibmetakhim	398.3	410.2
Metafrax	513.1	509.5
Akron	45.5	45.0
Azot, Novomoskovsk	107.9	118.7
Angarsk Petrochemical	18.1	0.6
Azot, Nevinnomyssk	48.4	41.9
Tomet	311.4	379.9
Ammoni	73.7	93.1
Totals	1906.5	1787.2

Russian Methanol Exports (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Azot Novomoskovsk	27.6	70.8
Akron	3.8	7.3
Metafrax	212.1	227.3
Sibmetakhim	188.0	220.0
Tomet	152.6	118.8
Shchekinoazot	329.7	135.0
Ammoni	13.5	1.6
Total	927.4	780.8

Russian Methanol Domestic Sales (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Azot Nevinnomyssk	12.4	2.9
Azot Novomoskovsk	67.2	60.1
Metafrax	103.7	104.8
Sibmetakhim	162.6	148.3
Tomet	171.1	229.9
Shchekinoazot	53.7	21.1
Ammoni (Mendeleevsk)	39.8	66.0
Others	0.0	0.5
Total	610.5	633.6

Major Russian Methanol Purchases (unit-kilo tons)		
Consumer	***Jan-May 19***	***Jan-May 18***
Nizhnekamskneftekhim	100.0	113.4
SIBUR Togliatti	69.0	51.8
Ektos-Volga	23.4	19.0
Omsk Kaucuk	42.3	36.4
Others	289.0	301.1

Methanol

Russian methanol production Jan-May 2019

Russia produced 1.909 million tons of methanol in January to May 2019 against 1.787 million tons in the same period in 2018. Metafrax produced 513,100 tons against 509,500 tons whilst Sibmetakhim at Tomsk increased production from 410,200 tons to 398,300 tons. Tomet at Togliatti reduced production to 311,400 tons from 379,900 tons. Shchekinoazot reported the most significant results, more than doubling from 188,400 tons to 390,300 tons following the installation of the new 450,000 tpa plant.

Russian methanol export sales, Jan-May 2019

Export shipments of methanol from Russia in January-May increased to 927,400 tons compared to 780,800 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 135,000 tons in the first quarter last year to 329,700 tons in the same period this year.

Russian methanol domestic sales, Jan-May 2019

Domestic sales of methanol on the Russian market amounted to 610,500 tons in January to May 2019 versus 633,600 tons in the same period last year. Tomet reduced sales from 229,900 tons in the first five months in 2018 to 171,100 tons this year, partly due to lower production and partly to higher exports. Ammoni at Mendeleevsk also reduced domestic shipments to 39,800 tons from 66,000 tons. Sibmetakhim from its Tomsk site increased sales from 148,300 tons to 162,600 tons whilst Azot at Novomoskovsk increased sales from 60,100 tons to 67,200 tons.

Of the main consumers, Nizhnekamskneftekhim purchased 100,000 tons in the first five months quarter this year against 113,400 tons in the same period in 2018 whilst SIBUR-Togliatti increased purchases from 51,800 tons in January to May 2018 to 69,000 tons in the same period this year. Other than the MTBE producers Metadynea and Kronospan remain the largest consumers, accounting for 19.335 tons and 24,960 tons respectively.

AEON methanol project Volgograd

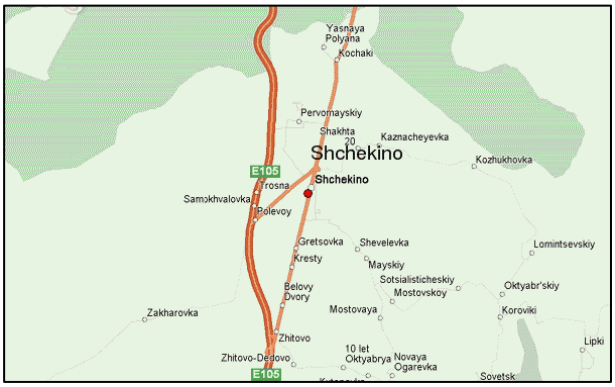
Sberbank has concluded an agreement on strategic cooperation with the AEON investment corporation to build a methanol plant on the former Khimprom site at Volgograd. The agreement will contribute to creating a large-scale methanol plant with a capacity of at least 1 million tpa. In turn, AEON stated that the construction of a methanol production plant is the first stage of the company's strategy to create a multi-chemical cluster in the Volgograd region.

The project partners include RDIF, Marubeni Corporation and AEON Infrastructure Corporation. GTM ONE and Mitsubishi Heavy Industries Engineering will prepare the project engineering, as well as the main technological solutions. Khimprom formerly was a major chemical producer until declared bankrupt in 2012.

Investments in the methanol plant will amount are estimated in the range of 50 billion roubles ($738 million). The construction of a new plant could start in 2020 and will be completed in 2023. The Russian-Japanese investment fund has joined the project to create a chemical cluster in Volgograd. Finished products of the plant will be delivered to international markets through Japanese trading companies.

Shchekinoazot-M500 methanol project

Shchekinoazot expects to start using the working documentation on the Methanol-500 project, and its third methanol plant in fourth quarter this year. Construction is already underway at the site of the new production and full-scale activity will be adopted after receipt of the working documentation. The project is being partly funded by the Russian bank VEB, which is providing 4.5 billion roubles, and Gazprombank which is allocating 10 billion roubles for the investment. A syndicated loan from banks will be used to pay for construction and installation work, and to purchase Russian-made equipment. The total investment cost is estimated at 22 billion roubles or $276 million. The launch of the M-500 project will allow Shchekinoazot to increase methanol capacity to 1.5 million tpa.



SAFMAR methanol project-Tecnimont

SAFMAR has signed further agreements and a memorandum of understanding with Maire Tecnimont and the sea terminal Novaya Gavan for construction of the methanol project at Ust Luga. The consortium will create a joint venture and will be engaged in the construction of a modern, "environmentally friendly" methanol plant. The capacity of the plant will comprise 5,000 tons per day. The total investment value of the project is tentatively more than €1 billion and is planned to be commissioned in 2024. The SAFMAR project is competing against two other plans for world-scale methanol plants at Ust Luga, but it seems unlikely that all three projects will be completed.

Gazprom-small methanol projects considered for East Siberia

Gazprom is exploring the possibility of launching a low-tonnage methanol production plans at gas production facilities in East Siberia based on the Chayanda gas field. The plant capacity of the first plant is 15,000 tpa of methanol which could be followed by other projects. Methanol is used within the gas sector as an inhibitor for hydrate formation and demand can be met through the construction of block-modular plants for low-tonnage production of methanol in the gas condensate and oil and gas condensate industries. Building small plants may represent an alternative to the transportation of methanol from the central regions.

Evrokhim-Kingisepp ammonia project

Evrokhim has opened a new ammonia plant at Kingisepp in the Leningrad region. The plant has the largest single-train production capacity in Europe, at 1 million tpa, in which Evrokhim has invested $1 billion. The design capacity of 2,890 tons per day ensures self-sufficiency for Evrokhim which will be able to supply ammonia to its fertiliser production plants at Antwerp in Belgium, Lifosa in Lithuania, and Phosphorit, the Group's adjacent phosphate fertiliser facility in Kingisepp. About 25% of total output will be sold to third parties, offering a more cost-effective supply of ammonia.

The new plant is located close to the group's existing rail and shipping facilities which allows ammonia to be easily transported to production units and world markets. Tecnimont SpA and Tecnimont Russia OOO were used for the engineering, procurement and construction of the plant, utilising KBR technology.

Evrokhim, ammonia, urea and methanol project-Kingisepp

Evrokhim, the Ministry of Industry and Trade of the Russian Federation and the Administration of the Leningrad Region have agreed to cooperate in the implementation of new investment projects worth up to $2.5 billion. The project location of Kingisepp near the port of Ust Luga has been selected for potential plants for1.2 million tpa of urea and 1 million tpa of ammonia, as well as up to 1.7 million tpa of methanol. Evrokhim plans to make investment decisions by the end of this year.

Togliattiazot-third urea plant started in June

The construction of the third urea unit was started at the Togliattiazot site in June involving a Chinese engineering company for construction and installation and the EPC contract conducted by Casale. The capacity of the third urea unit at Togliattiazot will be 2,200 tons per day which will allow the company to increase urea production from 3,000 to 5,200 tons per day. The volume of investments in the project is 25 billion roubles ($314 million). The facility is scheduled for commissioning in 2021. Current urea capacity for Togliattiazot stands at 960,000 tpa.

Russian Butanol Production (unit-kilo tons)		
N-Butanol		
Producer	***Jan-May 19***	***Jan-May 18***
Angarsk Petrochemical	12.3	14.2
Azot	5.6	5.0
Gazprom n Salavat	24.1	24.0
SIBUR-Khimprom	18.1	18.5
Total	60.1	61.8
Isobutanol		
Producer	***Jan-May 19***	***Jan-May 18***
Angarsk Petrochemical	7.2	7.8
Gazprom n Salavat	14.8	16.4
SIBUR-Khimprom	25.0	21.1
Total	47.0	45.3

Organic chemicals

Russian butanol production Jan-May 2019

Russian butanol production totalled 107,100 tons in January to May 2019, exactly the same as in the same period in 2018. Whilst n-butanol production dropped from 61,800 tons in the first five months in 2018 to 60,100 tons, isobutanol production rose from 45,300 tons to 47,000 tons.

Gazprom neftekhim Salavat reduced isobutanol production to 14,800 tons from 16,400 tons, whilst SIBUR-Khimprom increased to 25,000 tons from 21,100 tons. SIBUR-Khimprom started a maintenance shutdown at the oxo alcohol plant from 10 July which will last until the start of August. A cracker shutdown at the Perm site of SIBUR-Khimprom was scheduled for 14 July through to 7 August. The Angarsk plant for oxo alcohols also underwent maintenance in July, corresponding with the shutdown of the Angarsk Polymer Plant which supplies the propylene feedstock.

Russian Butanol Domestic Sales (unit-kilo tons)		
Producer	***Jan-May 19***	***Jan-May 18***
Gazprom n Salavat	2.1	2.8
SIBUR-Khimprom	12.0	11.8
Angarsk Polymer Plant	7.8	10.0
Azot Nevinnomyssk	0.5	0.0
Totals	22.4	24.6

Russian domestic butanol sales, Jan-May 2019

Russian butanol merchant sales in January to May this year amounted to 23,100 tons against 29,200 tons in January to May 2018. The main cause of the fall was the limited supply made available from Salavat, where only 2,100 tons were shipped in the first five months.

The two largest domestic purchasers in January to May 2019 were Dmitrievsky Chemical Plant with 7,500 tons, unchanged from 2018, and Akrilat at Dzerzhinsk with 7,300 tons against 7,600 tons. Butanol sales on the merchant domestic market amounted to 58,100 tons in 2018 against 59,900 tons in 2017.

Russian Organic Chemical Exports (unit-kilo tons)		
Product	***Jan-Apr 19***	***Jan-Apr 18***
N-Butanol	10.2	10.1
Iso-butanol	8.7	14.6
2-EH	2.6	7.6
Pentaerythritol	3.8	4.1
Phenol	14.8	9.4
Ethylene Oxide	4.7	4.5
Formaldehyde	4.9	6.2
Acetone	15.9	10.8
Acetic Acid	16.9	12.4
VAM	15.6	9.7
Phthalic Anhydride	19.1	17.2
Acrylonitrile	70.8	72.0
Caprolactam	70.4	68.8

N-butanol availability is affected by processing by both Gazprom neftekhim Salavat and SIBUR-Khimprom. Angarsk Petrochemical is the only producer with available product where there is no internal demand. SIBUR stopped production of butanols in early July for maintenance which is expected to last around a month. Contract deliveries are expected to proceed normally. Gazprom neftekhim Salavat uses a significant part of its own n-butanol to produce butyl acrylate.

Russian domestic prices of butanols at the end of June from SIBUR amounted to 71,500 roubles per ton for n-butanol and 52,000 roubles per ton for isobutanol. Gazprom neftekhim Salavat supplies normal butanol at 75,300 roubles per ton and isobutanol, at 72,500 roubles per ton. A significant part of n-butanol produced at Salavat is used at its own butyl acrylate production facilities. Products from the Angarsk Petrochemical Company are supplied by rail currently under a contract to the Dmitrievsky

Russian Butanol Consumption (unit-kilo tons)		
Consumer	*Jan-May 19*	*Jan-May 18*
Akrilat	7.3	7.6
Dimitrievsky Chemical	7.5	7.5
Kazanorgsintez	0.2	0.5
Volzhskiy Orgsintez	4.1	3.0
Roshalsjy Plant of Plasticizers	0.3	0.5
Others	2.9	5.5
Total	22.4	24.6

Chemical Plant, and a small amount of n-butanol is shipped to the free market at 55,000 roubles per ton in the Siberian Federal District.

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

Russian exports of 2-ethylhexanol (2-EH) dropped to 2,600 tons in the first four months in 2019 against 7,600 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 Phthalic Anhydride Production (unit-kilo tons)		
Producer	*Jan-May 19*	*Jan-May 18*
Gazprom neftekhim Salavat	5.3	4.6
Kamteks-Khimprom	37.7	39.1
Total	43.1	43.7

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.

Russian acetone exports, Jan-Apr 2019

Russian Acetone Exports 2019-volume tons)					
Country	***Jan***	***Feb***	***Mar***	***Apr***	***Total***
Belarus	0	0	0	1240	1,240
Netherlands	659	1060	1.09	727	2,447
Turkey	718	0	505	37.1	1,260
Latvia	342	0	438	114	894
Others	535	60	1636	921.9	3,153
Total	2254	1120	2580	3040	8,994

Acetone exports from Russia dropped from 12,490 tons in January to April 2018 to 8,994 tons in the same period in 2019. Prices for acetone have dropped this year and despite recent signs of improvement averaged less than $400 per ton in the first four months in 2019. The Netherlands took the most acetone from Russia this year to date. Belarus did not buy in the first three months until April when it purchased 1240 tons.

In 2018 Belarus purchased a total of 14,670 tons of acetone from Russia, mostly from Kazanorgsintez, Ufaorgsintez and sometimes Dmitrievsky Chemical Plant. 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.

Russian Organic Chemical Imports (unit-kilo tons)		
Product	*Jan-Apr 19*	*Jan-Apr 18*
Ethylene glycol	17.6	16.3
Propylene glycol	7.7	9.0
Isopropanol	4.5	6.6
Maleic anhydride	1.9	1.9
DINP	9.5	7.2
Phthalic anhydride	4.5	5.9
PTA	149.0	77.1
TDI	15.1	16.5
Lysine	19.9	31.8
Amino acids	5.8	11.2
Methionine	10.3	7.6

Other products

Shchekinoazot-dimethyl ether project

Shchekinoazot has achieved full capacity utilisation at the new plant for the production of dimethyl ether (DME) perfume quality, which started in December 2018. DME Aerosol is a jv with PCC SE and comprises a production capacity of 20,000 tpa. ThyssenKrupp Uhde Engineering Services monitored launching and personnel training. In 2018 Aerosolex LLC launched the production of DME in the Nizhny Novgorod region with a capacity 10,000 tpa. As the Russian market for DME is estimated at around 7,000 tpa, it would allow large surplus for export from Shchekinoazot and Aerosolex. Dimethyl ether can be used as a propellant for the production of aerosols in the food and cosmetic industries.

Russian TDI imports, Jan-Apr 2019

Russian TDI imports amounted to 15,100 tons in the first four months in 2019 against 16,500 tons in the same period last year. Germany remained the largest supplier, despite reducing shipments from 6,500 tons to 3,300 tons whilst Hungary increased sales from 3,400 tons to 3,500 tons and from the US a rise to 3,200 tons from 1,500 tons.

Russian TDI Imports (unit-kilo tons)		
Country	***Jan-Apr 19***	***Jan-Apr 18***
Hungary	3.4	3.5
Germany	3.5	6.5
South Korea	0.6	0.0
Saudi Arabia	3.0	3.0
US	3.2	1.5
Japan	0.6	0.9
Others	0.8	1.1
Total	15.1	16.5

Russian MDI imports, Jan-Apr 2019

MDI imports into the Russian market rose in the first four months in 2019 to 46,600 tons from 41,200 tons in the same period last year. Import costs for MDI in 2018 for the Russian market totalled $310.0 million against $258 million in 2017. Prices for MDI began to fall from the very beginning of 2018 due to the excess of supply over demand: from €2,800 per ton in June to €1,500 per ton by the end of the year.

In the first four months in 2018 prices for Russian imported MDI averaged $2,714 per ton whilst dropping to $1,581 per ton in the same period in 2019. As a result, Russian import costs for MDI totalled $71.6 million for the first four months this year versus $93.1 million in the period January to April 2018, despite the rise in imported volumes by 5,400 tons.

Russian Imports of MDI (unit-kilo tons)		
Country	***Jan-Apr 19***	***Jan-Apr 18***
Hungary	2.6	1.2
Germany	4.6	4.1
China	9.7	4.1
South Korea	0.8	0.3
Saudi Arabia	12.3	9.8
Japan	0.9	0.5
Belgium	5.6	3.5
Netherlands	10.0	10.1
Others	0.1	7.1
Total	46.6	41.2

The major change in supply in 2018 came from Saudi Arabia which shipped 39,700 tons of MDI against only 200 tons in 2017, whilst imports from Germany dropped from 44,600 tons to 18,200 tons. In the first four months in 2019 Russia imported 12,300 tons of MDI from Saudi Arabia against 9,800 tons in the same period last year. The second largest supplier in 2019 in the first four months was the Netherlands which shipped 10,000 tons, followed by Belgium with 5,600 tons and Germany with 4,600 tons.

Kuznetsky Technopark-new polyurethane foam plant launched

The production of a plant for flexible polyurethane foam has been launched in the Penza region. The capacity of the commissioned line is 10,000 tpa, organised by Kuznetsky Technopark LLC (part of the FoamLine Group of Companies). The total investment in the project is estimated at more than 1.4 billion roubles.

Polyurethane foam is intended to be shipped to the domestic market for furniture manufacturers, and to export up to 30% of finished products to neighbouring countries. Equipment was supplied for the new plant from Hennecke, Albrecht Baumer Gmbh, Dolphin Pack, etc. Kuznetsky Technopark intends to launch the second phase of the plant comprising the production of mattresses with a capacity of 600,000 tpa. GC FoamLine is the largest producer of polyurethane foam in the CIS, including eleven plants in Russia, Kazakhstan, Uzbekistan and Serbia.

Ukraine

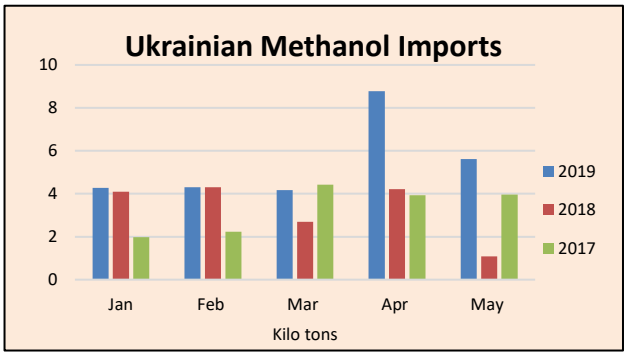
Ukrainian polymer imports, Jan-May 2019

Ukrainian imports of PVC decreased by 44% in the first five months in 2019 to 18,400 tons against 32,900 tons in the same period last year. European suppliers provided 565% of deliveries in the first five months in 2019, with the US supplying 34%. Imports of polyethylene to the Ukrainian market increased in the first five months in 2019 by 11% 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 42,000 tons in the first five months in 2019, compared to 31,100 tons in January to May 2018. LDPE imports were unchanged at 31,600 tons, whilst LLDPE imports amounted to 32,400 tons versus

Ukrainian Polymer Imports (unit-kilo tons)		
Product	***Jan-May 19***	***Jan-May 18***
PVC	18.4	29.9
LDPE	31.6	31.6
LLDPE	32.4	32.0
HDPE	42.0	31.1
Ethylene Vinyl Acetate	5.2	5.7
Polypropylene	54.9	48.4

32,000 tons. Imports of other grades of polyethylene dropped from 5,700 tons to 5,200 tons.

Polypropylene imports into Ukraine rose 13.5% in the first five months in 2019, up from 50,000 tons last year. In the first five months, total deliveries of PP-homo reached 43,900 tons against 36,300 tons whilst propylene block copolymer imports amounted to 5,400 tons from 5,200 tons.



Imports of PP-Random into Ukraine dropped from 7,400 tons to 6,400 tons, whilst the supply of other propylene copolymers amounted to 776 tons.

Ukrainan methanol imports, Jan-May 2019

Ukrainian methanol imports amounted to 27,195 tons in the first five months in 2019 against 16,993 tons in the same period in 2018. Whilst Russian suppliers represent the main source of methanol shipments into Ukraine, one of the major consumers Ukrgasdobycha has recently bought the first 185 tons of methanol from Azerbaijan as part of an annual contract for 15,000 tons. Tankers from Azerbaijan will deliver around 3,000 tons every two months through the port of Chernomorsk (Odessa region). The first tanker was unloaded at the port in early June. 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 five months in 2019.

Belarus

Belarussian Xylene Imports (unit-kilo tons)		
Product	***Jan-Apr 19***	***Jan-Apr 18***
Orthoxylene	4.932	8.972
Paraxylene	8.130	1.108

Belarussian xylene and propylene imports, Jan-Apr 2019

Orthoxylene imports dropped from 8,972 tons in the first four months in 2018 against 4,932 tons in the same period in 2019, whilst paraxylene imports rose from 1,108 tons to 8,130 tons.

Prices for paraxylene imports into Belarus increased in the first four months this year to $1038 per ton against $895 per ton in the same period in 2018. Russia remains the sole supplier of orthoxylene and paraxylene into Belarus.

Belarus imported 15,625 tons of propylene in the first four months in 2019 against 16,300 tons in the same period last year. Propylene prices dropped from €924 per ton in 2018 to €895 per ton in January to April 2019. Propylene is used in Belarus mainly for the production of acrylonitrile.

Belarussian Methanol Market (unit-kilo tons)		
	Jan-Apr 19	***Jan-Apr 18***
Production	31.3	27.7
Exports	6.9	7.1
Imports	13.3	27.8
Balance	37.7	48.4

Belarussian organic chemical trade, Jan-Apr 2019

Phthalic anhydride exports from Belarus totalled 13,800 tons in the first four months in 2019 against 16,400 tons in the same period in 2018. Acrylonitrile exports dropped to 14,200 tons from 15,500 tons whilst caprolactam shipments amounted to 4,263 tons against 3,221 tons. Methanol imports dropped from 27,800 tons to 13,253 tons whilst exports rose from dropped from 7,100 tons to 6,870 tons. Methanol consumption dropped slightly in the first four months from 48,400 tons to 37,700 tons.

Azot Grodno Production (unit-kilo tons)		
Product	***Jan-May 19***	***Jan-May 18***
Methanol	33.0	27.7
Caprolactam	49.9	50.9
Polyamide primary	46.1	47.2
Polyamide filled	5.0	5.1
Ammonia	478.7	477.2
Urea	406.9	459.2

Grodno Azot, Jan-May 2019

In the first five months in 2019 Azot at Grodno increased methanol production to 33,000 tons from 27,700 tons in the same period in 2018, whilst caprolactam production dropped slightly from 50,900 tons to 49,900 tons. The company plans to keep revenue at the same level as last year but allows for a decrease in net profit due to lower prices in foreign markets. 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.

Belarussian MDI Imports (unit-kilo tons)		
Country	***Jan-Apr 19***	***Jan-Apr 18***
Russia	0.6	0.7
Belgium	1.7	0.8
Hungary	0.3	0.7
Germany	2.6	1.4
Saudi Arabia	0.8	1.3
Others	0.1	0.5
Total	6.1	5.4

Belarussian MDI imports, Jan-Apr 2019

MDI imports into Belarus totalled 6,403 tons in the first four months in 2019 against 5,362 tons in the same period last year. Germany was the largest supplier, increasing shipments in January to April 2018 at $2847 per ton up to 2,628 tons at a much-reduced price of $1551 per ton.

Belgium exported 1,692 tons of MDI in the first four months in 2019 at a price of $1429 per ton, down from $3137 per ton and 796 tons in 2018. Overall, MDI prices dropped from $2975 per ton in January to April 2018 to $1578 per ton in the same period this year.

Belarussian polymer trade, Jan-Apr 2019

LDPE imports into Belarus dropped in the first four months in 2019 to 15,612 tons from 20,676 tons whilst HDPE imports dropped to 18,163 tons versus 19,562 tons. Exports of LDPE from Belarus dropped to 20,898 tons in January to April 2019 from 24,894 tons in the same period in 2018. HDPE exports dropped from 5,148 tons to 3,790 tons.

Imports of PVC into Belarus increased 17% in the first four months in 2019 to 12,800 tons against 10,900 tons in the same period in 2018. Russian producers with the share of about 87% of the Belarusian market were the key suppliers of resin to Belarus over the stated period. Producers from Ukraine and Germany with the share of 7% and 3% were the second and third largest suppliers, respectively.

Belarussian Polymer Imports (unit-kilo tons)		
Product	***Jan-Apr 19***	***Jan-Apr 18***
Polypropylene	35.2	33.4
LDPE	15.6	20.7
HDPE	18.2	19.6

Polypropylene imports into Belarus totalled 35,230 tons for the first four months in 2019 versus 33,402 tons in the same period in 2018. The main exporters to Belarus included Russia with 28,061 tons and Azerbaijan with 531 tons from the new SOCAR-Polymer plant.

Belarussian exports of polyamide amounted to 26,434 tons in the first four months in 2019 at a price of $1,778 per ton against 23,938 tons in the same period last year at a price of $2,172 per ton. Due to the fall in prices revenues dropped from $52.002 million to $46.988 million. Destination sales for Belarussian polyamide exports are focused largely on the CIS and European markets.

Belarussian PTA imports, Jan-Apr 2019

PTA imports into Belarus totalled 18,800 tons in the first four months in 2019, versus 13,021 tons in the same period in 2018. Imports from South Korea increased to 6,250 tons in January to April 2019 from 5,324 tons, at a price of €1017 per ton against €769 per ton last year.

Poland increased shipments of PTA to Belarus from 5,983 tons to 8,571 tons, with prices rising from €831 per ton in January to April 2018 to €900 per ton in the same period this year. The other main supplier in 2019 comprised Portugal which shipped 3,008 tons in the first four months.

Belarussian PTA Imports (kilo tons)		
Country	***Jan-Apr 19***	***Jan-Apr 18***
Russia	1.0	1.2
Belgium	0.0	0.5
South Korea	6.2	5.3
Portugal	3.0	0.0
Poland	8.5	6.0
Total	18.8	13.0

Mogilevkhimvolokno-new polyester complex to be running at full capacity by end of 2019

The new production facilities for Mogilevkhimvolokno (commissioned in December 2018) for polyester fibre are expected by the company to achieve full capacity by the end of 2019. The first line for the production of staple fibre has already reached its design capacity, and the second line has recently begun production of conjugate fibre products. By the end of 2019, the company is planning to launch a new

equipment with a capacity to produce 50,000 tpa of polyester fibre. More than 90% of the polyester fibre produced from the new production complex is intended to be directed towards Russia and the EU countries.

The new plant represents the first phase of Mogilevkhimvolokno's investment project entitled Polyester Production Complex. The concept of implementing the second phase of development of the enterprise has been approved and provides for the construction of a PET continuous polycondensation unit, lines for the production of polyester fibre, an additional polycondensation unit and for the production of technical yarns. The project will allow the company to fully switch to modern technologies for the production of PET granulate, polyester fibre and polyester technical filaments.

Central Asia/Caucasus

SOCAR Polymer-polyolefin exports

Following the introduction of polypropylene production by SOCAR Polymer in 2018 export revenues for polypropylene from Azerbaijan increased 84 times in the first five months in 2019 to $33.6 million. Polyethylene, which is still to be exported from SOCAR Polymer, saw a fall in revenues against the first five months in 2018 by 16.9% to $35.4 million. Supplies of Azerbaijani polypropylene to Russia began in February 2019, following the commissioning of capacity at SOCAR Polymer. In total, in 2019 more than 8,000 tons of polypropylene was shipped to Russian consumers. SOCAR Polymer's capacity of HDPE is 120,000 tpa, following the polypropylene plant with a capacity of 184,000 tpa.

SOCAR-Polymer-polyolefn exports

- Polypropylene revenues rise 84 times in first five months in 2019 to $33.6 million
- Polyethylene revenues dropped in Jan-May 2019, but are expected to rise in second half of year
- Capacities include 184,000 tpa for polypropylene and 120,000 tpa of HDPE

SOCAR started deliveries of HDPE to Russia at the end of June, produced at SOCAR Polymer plant. The first batch of HDPE with a volume of 1,500 tons was shipped by SOCAR Rus, using a new transport route across the Caspian Sea from the Hovsan port to the port of Astrakhan. The expansion of the logistics chain is designed to reduce transportation costs, since the specific fuel consumption and energy costs per kilogram of product is insignificant compared to land transport.

The HDPE plant belonging to SOCAR Polymer at Sumgait has the capacity to meet domestic demand in full in Azerbaijan, and even that would allow up to 75% of the production to be exported. Shareholders of SOCAR Polymer comprise SOCAR (52.2%), Vitol (19%), Pasha Holding (9.9%), Ecoland (9.8%), Polymer Investments (5%) and AKKIK (4.1%). The project was delivered in cooperation with Maire Tecnimont, Fluor, LyondellBasell, and INEOS. About 60% of the project cost was paid by the loans from Gazprombank.

Azerbaijan Chemical Production (unit-kilo tons)

Product	*Jan-May 19*	*Jan-May 18*
Ethylene	60.0	50.5
Polyethylene	49.6	49.2
Propylene	44.9	32.5
Methanol	145.1	58.0

Azerbaijan petrochemical production, Jan-May 2019

In January-May 2019, 44,900 tons of propylene was produced in Azerbaijan, 72.3% more than the same period last year. Polyethylene production increased 0.8% to 49,600 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. Ethylene production rose 18.7% in the first five months in 2019 to 60,000 tons.

SOCAR-urea exports from new plant

The SOCAR urea plant began exports in June, sending 15,000 tons to Turkey through the Volgodonsk Canal and through to the ports of Georgia and Turkey. By the end of the year, the construction of the railway will be completed, which will allow exporting urea by the Baku railway Tbilisi-Kars. The urea plant is located in the Sumgait Chemical Industrial Park. About two thirds of the products from the plant, with a capacity of 2,000 tons per day, are earmarked for export to the Turkish market.

Azerbaijan-methanol exports & production, Jan-May 2019

In January-May 2019, Azerbaijan exported methanol for $23.9 million which is nine times more than in the same period in 2018 when exports brought in $2.6 million. In the first five months in 2019 Azerbaijan produced 145,100 tons of methanol which increased from 58,000 tons in the same period last year. 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.

Uzbek MTO plant

Uzbekistan's Ministry of Energy and a group of investors have signed a project development agreement (PDA) to build a new methanol-to-olefins technology-based petrochemical plant. The group of investors includes Uzkimyosanoat, Air Products & Chemicals, Uzbekneftegaz and Enter Engineering. The plant will use the domestic supply of gas to produce chemical products with high added value. According to the preliminary agreements, the group of investors plans to build a 500,000 tpa plant, which is expected to process 1.5 cubic metres of natural gas per annum. The plant will produce polymers used in multiple sectors and other high-value products such as plastics and synthetic rubber.

Kazakh MTO project at Aktau

Kazakhstan has outlined plans to build olefin production facilities at Aktau using MTO technology. The project is located on the territory of the SEZ Seaport Aktau, with project costs estimated at $1.8 billion. The plant will process gas into methanol and further components that will help produce more than 40 different products names. Singapore company Westgasoil has been named as the organiser of the project.

Kazakh paraxylene and benzene production, Jan-May 2019

The Atyrau refinery produced 47,400 tons of paraxylene in the first five months in 2019 and 7,400 tons of benzene. The target established for 2019 is 150,000 tons of paraxylene and 30,000 tons of benzene. In the period January-May 2019, the Atyrau refinery shipped about 2,200 tons of benzene per month to Russia but started increasing shipments in June. In May, the refinery produced 4,200 tons of benzene, which is a historical maximum for the company. This result was made possible by the launch of the third section at the Paramax benzene and paraxylene production unit in Atyrau. Over five months, shipments to Russia increased by 5,800 tons compared to last year to 10,900 tons. The number of importers increased to two: besides Kuibyshevazot, the Atyrau refinery sold benzene to Shchekinoazot.

Atyrau PDH project update

After changes in the management of the integrated gas-chemical complex at Atyrau the pace of construction has risen much quicker, and project completion is currently rated at around 34% against only 6% by at the end of June 2018. Propylene production represents the first stage of construction of the integrated gas chemical complex. Completion of the facility is planned by mid-2021 and will include installations for PDH using licensed technology from Lummus Technology and 32 large infrastructure facilities.

Regarding raw materials for polypropylene production, 550,000 tpa of propane are planned to be delivered by pipeline from the Tengiz field to the Karabatan station, which is approximately 50 km from Atyrau. The capacity of the polypropylene plant is 500,000 tpa. Kazakhstan Petrochemical Industries was established in 2008 and is included in the group of companies of the National Welfare Fund Samruk-Kazyna.

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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