

CIREC

MONTHLY NEWS

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

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Czech Republic | Slovakia | Hungary | Poland | Bulgaria | Romania | Croatia | Slovenia | Yugoslavia | Baltic States | Russia | Belarus | Ukraine | Transcaucasus | Central Asia | Kazakhstan

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CENTRAL & SOUTH-EAST EUROPE

Central European petrochemical margins, September 2017

Orlen's petrochemical margin averaged €946 per ton in the first three quarters in 2017 against €872 per ton in the same period in 2016. Orlen's petrochemical margin fell to €920 per ton in September rose from €903 in August. The PKN Orlen petrochemical margin is calculated from HDPE 44%. LDPE 7%, polypropylene homopolymer 35% and polypropylene copolymer 12%.

Central European refining margins \$/barrel				
Producer	Q4 16	Q1 17	Q2 17	Q3 17
PKN Orlen	5.8	5.3	6.9	7.9
MOL	6.6	6.5	6.4	7.3
Lotos	8.2	7.3	7.1	10.4
Slovnaft	6.3	7.0	7.0	8
Unipetrol	4.0	4.0	4.3	5.5

In Hungary and Slovakia MOL's petrochemical margins dropped to €493.6 per ton in September against €460 in August and €511.6 in July. Unipetrol announced its strong model margins for September and the entire third quarter in

2017. However, the common petrochemical margin (€750/ton) declined by about 11% on a quarterly and annual basis.

Anwil-PVC production increase for VCM/PVC

August was the second consecutive month in which Anwil at Wloclawek produced a record amount of VCM and PVC. In July production of VCM amounted to 31,150 tons and PVC 31,380 tons. In August VCM production rose to 31,242 tons and PVC to 31,000 tons.

The positive economic situation in the industrial and construction sectors has enabled Anwil to benefit from strong demand for PVC. A revival in pipe sales has taken place this year in addition to further increases in PVC sales to window profile manufacturers. Current consumption of PVC in Central and East Europe is about 1.3 million tpa.

PKN Orlen energy

PKN Orlen's electricity generation sources are estimated to increase by as much as 50% in 2017 as the result of investments in the construction of gas-steam units at Wloclawek and Plock. The first 463 MWe unit at Wloclawek is already producing energy and the second 596 MWe unit is due in the fourth quarter of this year.

PDH Polska-polypropylene project

Grupa Azoty is proceeding with its plan to construct a polypropylene plant, as part of the PDH Polska propylene project. Thus, the expected value of the investment in PDH Polska could now rise from the planned zł 2.7 billion to over zł 5 billion. Questions are

being posed over the economic viability of constructing the propylene and polypropylene plants, partly due to the reliance on imported technologies. Moreover, rather than polypropylene it is debateable whether PDH Polska would be better suited to providing a base for other propylene derivatives such as specialized chemicals for superabsorbents, etc.

PDH Polska-Key Points

- Construction in Pomeranian Special Economic Zone
- Propylene plant-capacity 450,000 tpa
- Polypropylene plant-capacity 200,000 tpa

The objective for PDH Polska is to build a propylene plant, in a large part to meet the demand from Grupa Azoty ZAK at Kedzierzyn. The plant is being located in the Pomeranian Special Economic Zone (PSSE), over an area of 50 hectares. The company is to employ

around 200 people and could receive a state grant of up to zł 428 million. PDH Polska, a special purpose vehicle owned by the Azoty Police and Grupa Azoty, is entitled to receive up to zł 428 million of public aid in accordance with this decision. The first ton of propylene is expected to be produced in the second half of 2019.

Czech Petrochemical Exports (unit-kilo tons)

Product	Jan-Aug 17	Jan-Aug 16
Ethylene	41.9	0.1
Propylene	17.1	3.1
Butadiene	3.1	1.1
Benzene	13.6	4.4
Ethylbenzene	83.9	0.2

Unipetrol's investment into polyethylene

Unipetrol is assessing whether to keep its oldest polyethylene unit (PE1) in operation after start-up of the new plant in 2018. Unipetrol is currently investing Kc 8.5 billion in construction of the new polyethylene unit (PE3), aimed at reaching more market segments in addition to boosting profitability. The original plan was to shut (PE1) down, but now the company is currently investigating whether to keep this unit operational. Although Unipetrol still has customers for grades produced by the PE1 unit the decision will probably

depend on the ethylene balance and whether there is sufficient supply. In the first half of 2017 Unipetrol

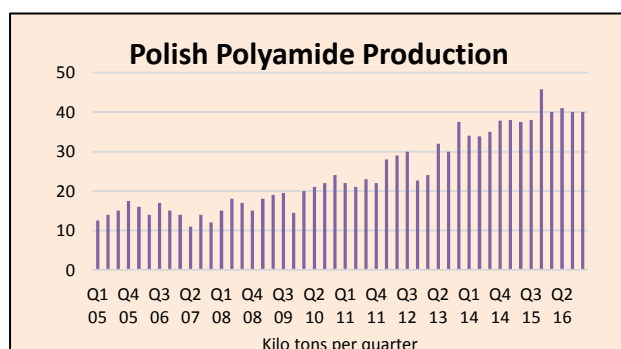
posted earnings before interest, tax, depreciation and amortisation (EBITDA) of Kc 11.9 billion in 2016. The results in the first half of 2017 have been helped by firming margins.

Czech Petrochemical Imports (unit-kilo tons)		
Product	Jan-Aug 17	Jan-Aug 16
Ethylene	2.6	107.1
Propylene	29.1	102.7
Butadiene	32.5	36.0
Benzene	52.0	60.4
Ethylbenzene	20.0	46.1
Styrene	9.8	11.9

Ciech-polyolefin trade based on Iranian supply

Ciech Group has started importing and selling Iranian polyolefins, increasing regional competition. Through the company's Ciech Trading subsidiary, polyethylene (PE) and polypropylene (PP) products would be sourced from three Tehran-based producers, including Jam Petrochemical Company (JPC), Jam Polypropylene Company (JPPC) and Persian Gulf Petrochemical Industry Commercial Company (PGPICC).

New trading contacts in the Middle East are thus translating into an expansion of Ciech Trading's business opportunities. Ciech Trading has stated that it could now offer around 200 types of plastics, with products



not only for the packaging industry but also for the automotive, agriculture, construction and electronics industries. By moving into the distribution of polyolefins in Europe, Ciech Group has become a competitor to PKN Orlen, Unipetrol and the MOL Group.

Grupa Azoty-new polyamide plant start-up

After two years of construction, a new polyamide plant was opened at by Grupa Azoty Tarnow on 25 September. The \$320 million plant will not only increase production, but will improve profitability

and help to reduce vulnerability to market conditions.

Polish Chemical Production (unit-kilo tons)		
Product	Jan-Aug 17	Jan-Aug 16
Caustic Soda Liquid	237.9	225.6
Caustic Soda Solid	51.4	41.3
Ethylene	323.7	317.4
Propylene	232.1	232.0
Butadiene	39.3	38.7
Toluene	14.9	9.3
Phenol	29.2	21.8
Caprolactam	108.8	93.9
Acetic Acid	14.6	4.9
Polyethylene	226.3	225.5
Polystyrene	37.0	32.4
EPS	64.1	52.3
PVC	204.2	171.1
Polypropylene	179.7	163.5
Synthetic Rubber	159.2	131.7
Ammonia (Gaseous)	1871.0	1523.0
Ammonia (Liquid)	65.0	55.3
Pesticides	35.6	15.6
Nitric Acid	1597.0	1305.0
Nitrogen Fertilisers	1368.0	1124.1
Phosphate Fertilisers	308.5	293.8
Potassium Fertilisers	289.6	246.1

Grupa Azoty currently operates a plant of 100,000 tpa of polyamide, and the new plant facilitates production at Tarnow to increase by another 80,000 tpa. Grupa Azoty is facing the challenge of product diversification and thus by adding the new plant will help the company to ride out the fluctuations in the caprolactam market. Polyamide may offer better prospects than caprolactam and the new plant could become the basis for the production of advanced construction materials.

Spolchemie-new chlorine plant benefits

Spolchemie's new membrane process for producing chlorine represents the company's largest investment, estimated at about Kc 2 billion. The investment included the construction of a new substation, salt stores, salt-water treatment plants, electrolysis, chlorine, hydrogen and hydroxide treatment plants. Spolchemie produces both potassium hydroxide and sodium hydroxide, the quality of which allows the company to sell to the healthcare, food and cosmetics sectors.

The new membrane electrolysis unit is located in the northern part of the site at Usti nad Labem and consumes roughly 60,000 tpa of salt. At least half of hydrogen is used in the production of hydrochloric acid, which is used as a commercial product in the electrochemical industry, i.e., electroplating. The other

half is burned by default and Spolchemie is looking for a more efficient use of hydrogen. One proposed option is to use hydrogen for fuelling local bus services in the areas of Usti nad Labem and Teplice.

Spolana-membrane investment

Spolana is expected to form Unipetrol's next investment major project after the construction of the new polyethylene plant. Investment into the membrane electrolysis unit at Neratovice has been estimated to require up to Kc 3 billion. Preparations for the new chlorine plant should start in 2018. Minority shareholders have criticized the purchase of Spolana and the decision to support the construction of a new chlorine plant. Unipetrol contends that the purchase of Spolana was the right decision when looking at the PVC market and its potential growth rates. Spolana has taken significant steps in recent years to reduce emissions and the new membrane electrolysis unit will allow the company to keep operating.

BorsodChem-new chlorine plant

A loan worth €79 million was recently signed by Hungarian Development Bank. (MFB) and BorsodChem to support the construction of a new membrane electrolysis plant at Kazincbarcika to replace the mercury plant. The company already operates a 195,000 tpa membrane unit, and with the replacement of the 125,000 tpa mercury plant, BorsodChem will maintain its position as one of the leading producers of chlorine and caustic soda in the region. The loan from MFB is the first drawdown from the €1 billion framework provided by China to Hungary. During the 2012-2016 period, BorsodChem made investments of €216 million (Ft 65.6 billion), including projects to improve environmental, energy efficiency and capacity-building. The new plant under construction is scheduled for completion in the next few months and to be operational in the first quarter of 2018.

RUSSIA

Russian Chemical Production (unit-kilo tons)

Product	Jan-Aug 17	Jan-Aug 16
Caustic Soda	801.1	730.6
Soda Ash	2,279.0	1,958.7
Ethylene	1,970.1	1,864.0
Benzene	875.9	800.5
Xylenes	320.9	384.4
Ammonia	10,900.0	10,500.0
Nitrogen Fertilisers	6,572.0	6,278.0
Phosphate Fertilisers	2,345.0	2,325.0
Potash Fertilisers	5,684.0	5,017.0
Plastics in Bulk	5,172.0	5,120.0
Polyethylene	1,367.0	1,449.0
Polystyrene	360.6	363.8
PVC	604.1	524.5
Polypropylene	988.0	866.2
Polyamide	104.6	103.9
Synthetic Rubber	1,042.0	961.7
Synthetic Fibres	111.6	100.5

Russian chemical production, Jan-Aug 2017

Production in the Russian chemical industry has continued to rise this year as new capacity increases operational rates. It should also be noted that a wide range of new projects are under stages of construction, preparation or planning. SIBUR's flagship ZapSibNeftekhim project at Tobolsk, including 1.5 million tpa of ethylene, represents the significant addition to the petrochemical sector in Russia for several decades. New ethylene capacity is being planned for the Volga-Urals, including Nizhnekamskneftekhim and Kazanorgsintez, and the long-term focus of Russian petrochemical projects in Siberia and the Russian Far East appears to be intensifying.

Russian ethylene production totalled 1.970 million tons for the first eight months in 2017, up by 7.6% over the same period in 2016. Benzene production in Russia has risen 9.1% in the first eight months in 2017 to 875,400 tons. Chemical production in Russia this year has increased much greater than industrial production overall, which rose by an estimated 3.8% in the second quarter this year. GDP has stabilised to an extent, and forecasts for 2017 range from 1.5% to 2.3%, helping to recover some of the lost ground from 2015 and 2016. At

the same time demand across the chemical industry shows a mixed picture. Although paint and tyre production are rising due to good demand, domestic consumption of polyolefins, PVC and polystyrene is rising slower than might be expected.

Russian chemical trade balance

Russia's chemical product trade balance rose to a deficit of \$10.9 billion in the first seven months in 2017 against \$6.6 billion in the same period in

Russian Chemical Trade Deficit



2016. The trade deficit in chemical industry products came down in 2015 and 2016 due to serious economic difficulties, but has been partially revived in 2017 as a slight recovery has been underway. Renewed spending power has helped revive purchasing of higher added value products, such as pharmaceutical intermediates, organic chemicals and speciality polymers. Some of these products are either not available in Russia or if produced lack quality or price competitiveness.

Delivery of equipment to ZapSibNeftekhim-August 2017

Contracts with 43 Russian enterprises were concluded in August by SIBUR for the supply of construction materials and equipment for ZapSibNeftekhim.

The materials are to be used in the construction of the inter-plant trestle of technological pipelines, central operator, flare facilities, the point of preparation of wagons, the service complex and other facilities. Polymerprom (Nizhny Novgorod) and Polyplastik (Yekaterinburg) are supplying polyethylene pipe parts and pipes for in-site water supply and sanitation networks.

Cabling and wiring products are being provided by the Tomsk company Tomskcable and the Moscow company SPP Spetskabel LLC. Also, based on the results of contracts concluded in August, domestic enterprises are to provide ZapSibNeftekhim with electrical installation materials, diesel power stations, etc. Shipment of materials and equipment under the August contracts are being delivered up to the end of October 2017. SIBUR plans to complete the construction of the ZapSibNeftekhim petrochemical complex in mid-2019

Russian Petrochemical Projects

SIBUR-ethane for Amur Gas-Chemical Complex

SIBUR estimates that its required purchase range for ethane from Gazprom for the Amur Gas Chemical Complex could vary within the range of 1.7 to 1.9 million tpa. The proposed gas-chemical complex is to be located at Svobodny in the Amur Oblast. SIBUR needs to clearly identify the amount of ethane Gazprom can produce, and the amount of ethane that it can use. One concern is that if China reduces demand for gas products from the Amur GPP, that this could affect utilisation and thus ethane availability.

The volume range of ethane supply is quite sensitive, in that if an agreement was reached that it would not be possible to adjust the

volume at a later date. The configuration of the Amur Gas-Chemical Complex means that it would be not possible to reorganise ethane supply after the set-up has been made, particularly in the construction of the fourth unit from the six scheduled.

VNHK, Rosneft-Gazprom

Rosneft and Gazprom agreed on gas supplies to the Eastern Petrochemical Complex (VNHK) in the Primorsky Kray. Accordingly, Gazprom agreed in principle with Rosneft to organise the delivery of natural gas in the volume of 2.3 billion cubic metres per annum for the VNHK. The dispute over the possibility of organising natural gas deliveries to the complex has been ongoing for several years.

three stages.

VNHK-Saipem

Rosneft has commissioned Italian company Saipem to develop a feasibility study for the Eastern Petrochemical Company (VNHK) complex, which is being planned for Nakhodka in the Russian Far East. Rosneft has selected Saipem to develop a feasibility study for the complex, as well as providing project management services. The cost of works is estimated at €1.3 million, covering the proposed

Rosneft, three cluster approach for petrochemical investments

Rosneft's petrochemical strategy is aimed at the development of three clusters, comprising the Volga region (including Samara and Ufa), East Siberia (probably Boguchany) and the Primorsky Kray in the Russian Far East. The concept of creating a polymer complex in the Volga a cluster includes a total capacity of about 2.5 million tpa of ethylene, using LPG feedstocks, at the existing Novokuibyshevsk site. The plan for Ufa includes using refineries and petrochemical units to process raw materials, and to integrate with the refineries of the Samara region.

The new strategic priority of Rosneft is focused on the development of the oil and gas chemical business and to reduce the dependency on exports of hydrocarbons. Additional feedstocks to the balance of petrochemical raw materials are expected from the commissioning of new deposits, including a significant 30 billion cubic metres of additional natural gas production in the Samara region. Thus, Rosneft is looking at chemical gas processing as one of the most promising areas in terms of optimal and profitable use of resources and is considering investments of around \$30 billion over the next decade. Challenges to Rosneft include infrastructure limitations, including new port facilities, sea terminals, and the expansion of railway crossings.

Tatarstan-ethane expansion for Kazanorgsintez

Tatneft subsidiary Tatneftegazpererabotka has outlined modernisation plans for the Minnibayevo Gas Processing Plant (GPP) up to 2025. As part of the first stage of modernisation and technical re-equipment of the GPP, work is planned on the desulphurization unit. Tatneft also expects to increase capacity at Minnibayevo to receive additional volumes of associated gas. Reconstruction of the Minnibayevo-Kazan gas pipeline on the 220-285 km section is also part of the project.



The ethane feedstock deficit for Kazanorgsintez is currently estimated at 120-150,000 tpa. Tatneft supplied 187,000 tons of ethane from the Minnibayevo gas processing plant to Kazanorgsintez in 2016 for ethylene production, 16,700 tons up on 2015. Tatneft supplies around 30% of ethane requirements for Kazanorgsintez, supplementing the main source of supply from Gazprom's Orenburg gas processing plant.

One of the key projects at Minnibayevo involves the construction of a cryogenic plant for deep processing of dry stripped gas. The capacity of the plant for raw

materials is 365,000 tpa. Tatneftegazpererabotka wants to construct a helium separation plant with a capacity of 77,500 tpa and an LNG plant with a capacity of 42,000 tpa.

Russian Ethylene Production (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Angarsk Polymer Plant	123.6	49.2
Kazanorgsintez	407.1	353.6
Stavrolen	209.4	202.5
Nizhnekamskneftekhim	431.5	392.7
Novokuibyshevsk Petrochemical	36.3	42.8
Gazprom n Salavat	190.9	211.4
SIBUR-Kstovo	269.3	264.5
SIBUR-Khimprom	32.3	57.0
Tomskneftekhim	184.7	139.2
Ufaorgsintez	85.1	86.5
Total	1970.1	1799.4

Tatneftegazpererabotka is a structural subdivision of Tatneft, which processes associated petroleum gas and wide fractions of light hydrocarbon to produce LPG, gasoline fractions, ethane and methane fractions, technical sulphur.

Russian feedstocks & petrochemicals

Russian ethylene production Jan-Aug 2017

Russian ethylene production rose 4% in August over July to 228,000 tons. After completing maintenance Angarsk Polymer Plant produced 16,680 tons of ethylene in August against 1,360 tons versus a month earlier and Gazprom neftekhim Salavat increased output to 7,350 tons from 167 tons in July.

For the first eight months of 2017 Russian ethylene production totalled 1.970 million tons, 7% more than in the same period in 2016. The largest increases were reported by Angarsk Polymer Plant, rising from 49,200 tons to 123,600 tons, Kazanorgsintez rose from 353,600 tons to 407,100 tons and Nizhnekamskneftekhim from 392,700 tons to 431,500 tons. Tomskneftekhim was bel to increase production from 139,200 tons to 184,700 tons, whilst Gazprom neftekhim Salavat reported a drop from 211,400 tons to 190,900 tons.

In the first eight months of 2017, petrochemical companies bought 945,000 tons of naphtha in Russia, 21% more than in the same period in 2016. In September Nizhnekamskneftekhim stopped the production of ethylene oxide for major repairs for about two weeks.

Russian propylene production was unchanged in August at 137,600 tons. SIBUR-Khimprom reduced production of the product to 579 tons, which is 91% less than in July and SIBUR-Kstovo reduced production by 25% to 11,240 tons. Tomskneftekhim also reduced production by 10% to 10,400 tons. For the first eight months in 2017 Russian propylene production totalled 1.190 million tons. The largest proportional rise was reported by Tomskneftekhim. Increasing from 86,700 tons in January to August 2016 to 100,300 tons in the same period in 2017. **Full historical production data is available on CIREC's Statistical Database at www.cirec.net**

Russian Propylene Exports (unit-kilo tons)		
Company	Jan-Aug 17	Jan-Aug 16
Lukoil-NNOS	53.7	41.0
SIBUR-Kstovo	49.8	33.9
Omsk Kaucuk	2.0	0.0
Angarsk Polymer Plant	0.0	0.4
Stavrolen	6.6	11.0
Total	112.1	86.3

Russian propylene exports, Jan-Aug 2017

Propylene exports totalled 112,100 tons in the first eight months in 2017 against 86,300 tons in the same period in 2016. Lukoil-NNOS remains the largest exporter, shipping 53,700 tons against 41,000 tons in January to August 2016. Exports of propane-propylene fractions from Russia amounted to 55,900 tons in the first eight months in 2017, which was 31% down against the same period in 2016. The Ryazan refinery was responsible for 53,800 tons of exports of propane-propylene fractions, with the remainder shipped by Slavneft-Yanos.

Russian propylene sales Jan-Aug 2017

Russian propylene sales rose 13% in August over July to 33,950 tons. After the completion of repairs, the Angarsk Polymer Plant increased shipments to 5,400 tons from 177 tons and Lukoil-NNOS increased shipments by 13% to 19,410 to

Russian Propylene Domestic Sales (unit-kilo tons)		
Company	Jan-Aug 17	Jan-Aug 16
Angarsk Polymer Plant	43.9	16.8
SIBUR-Kstovo	65.5	78.1
Lukoil-NNOS	136.7	136.2
Others	8.2	4.7
Total	254.3	235.8

ns. At the same time, Sibur-Kstovo reduced shipments of propylene by 19%, to 9,130 tons. In the first eight months, shipments to the domestic merchant market totalled 252,000 tons which was 5.5% more than the same period in 2016.

Angarsk Plant of Polymers shipped 43,860 tons of propylene in January to August 2017, 2.5 times more than in the same period of 2016 whilst Lukoil-NNOS was

unchanged at 136,000 tons. SIBUR-Kstovo reduced monomer supplies by 17% to 66,000 tons. Sales of propane-propylene fractions totalled 103,490 tons in the first eight months in 2017, 12% less than in the same period of 2016.

Russian styrene sales Jan-Aug 2017

Styrene production in Russia increased to 45,000 tons in August, 3% more than in July. Gazprom neftekhim Salavat completed planned repairs and increased its production volumes to 6,180 tons. Monomer production also resumed at Angarsk Polymer Plant, producing 3,300 tons versus 29 tons in July. At the same time, repairs began at SIBUR-Khimprom, resulting in a three-fold drop in production to 3,000 tons. In the first eight months in 2017 Russian production of styrene fell 2% to 448,200 tons. Nizhnekamskneftekhim was the largest producer, rising to 206,900 tons from 198,300 tons.

Russian Styrene Production (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Nizhnekamskneftekhim	206.9	198.3
Angarsk Polymer Plant	22.4	10.2
SIBUR-Khimprom	74.2	94.5
Gazprom n Salavat	102.0	116.4
Plastik, Uzlovaya	42.7	37.3
Total	448.2	456.7

Russian producers of styrene increased domestic sales by 36% in August against July to 5,000 tons. The main supplier of the monomer is Gazprom neftekhim Salavat, which in August shipped 2,100 tons and Angarsk Polymer Plant supplied 1,400 tons.

The resumption of shipments of styrene from Plastik amounted to 960 tons, whilst the supply of monomer from SIBUR-Khimprom decreased by 5.6 times to 498 tons. For the first eight months of 2017, Russian enterprises shipped 60,800 tons of styrene to the domestic market, which is 4% less than in the same period in 2016. The decrease in domestic sales was due to a drop in shipments from SIBUR-Khimprom and Gazprom neftekhim Salavat by 21% and 17% respectively.

Styrene exports from Russia rose four-fold in August over July to 10,700 tons. Gazprom neftekhim Salavat shipped 10,500 tons, and the remainder by SIBUR-Khimprom. Finland remains the main direction of Russian exports, accounting for 9,000 tons, followed by Turkey 1,500 tons. In the first eight months of 2017, Russian plants shipped 85,000 tons of styrene to the foreign market, 5.5% less than in the same period in 2016.

Bulk Polymers

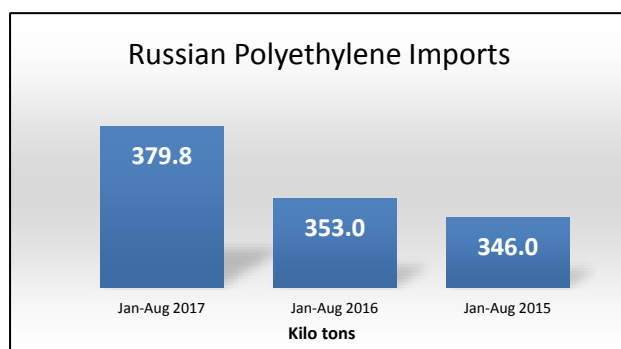
Russian HDPE Production (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Kazanorgsintez	363.3	328.9
Stavrolen	193.6	180.2
Nizhnekamskneftekhim	37.1	92.5
Gazprom n Salavat	52.9	73.8
Total	646.9	675.4

Russian HDPE production, Jan-Aug 2017

HDPE production in Russia fell by 4.3% in the first eight months in 2017 to 646,900 tons against 676,200 tons in January to August 2016.

Kazanorgsintez increased production of HDPE by 10% in the first eight months to 363,300 tons. Kazanorgsintez stopped the production of HDPE for planned preventive maintenance on 28 September, which is scheduled to last until 19 October.

Stavrolen increased its production by 7% in the first eight months to 193,600 tons, whilst Gazprom neftekhim Salavat reduced production of polyethylene by 28% to 52,900 tons. Stavrolen stopped the production of HDPE on 16 September for long-term maintenance for a period of two months. Nizhnekamskneftekhim has produced only 37,100 tons of HDPE in the first eight months in 2017, against 92,500 tons in the same period in 2016 having, focused more on LLDPE production.



Russian polyethylene production in total amounted to 1.180 million tons in the first eight months in 2017, 6% up on 2016. LDPE production rose 10% to 432,100 tons and LLDPE rose from 49,000 tons in January to August 2016 to 100,000 tons.

Russian polyethylene imports, Jan-Aug 2017

HDPE imports into Russia totalled 143,000 tons in the first eight months in 2017, 49% up on the same period in 2016. A total of 25,000 tons was

imported in August, and 15,000 tons in July. Uzbek polyethylene is being seen more widely on the Russian market. Imports of polyethylene film into Russia amounted to 34,700 tons in January to August 2017 against 15,200 tons in 2016, whilst supplies of polyethylene for injection moulding grew by 34% to 33,100 tons. Demand for polyethylene for extrusion blow moulding of foreign production increased by 40% to 29,500 tons, and other grades of consumption, including for coating large diameter pipes, totalled 45,700 tons versus 35,300 tons.

Overall, polyethylene imports into Russia totalled 379,800 tons in the first eight months in 2017 against 353,200 tons in the same period in 2016. LLDPE imports dropped from 146,000 tons to 121,000 tons, and LDPE imports dropped to 59,900 tons from 65,000 tons. EVA imports rose by 22.5% to 25,200 tons and other polyethylene grades amounted to 30,600 tons versus 25,600 tons.

Russian polypropylene, Jan-Aug 2017

Russian polypropylene imports fell 7% in the first eight months to 108,800 tons from 117,500 tons in the same period in 2016. Homopolymer imports dropped to 37,100 tons from 55,900 tons whilst block copolymer supplies rose to 28,900 tons against 21,100 tons. Imports of propylene copolymers amounted to 19,300 tons against 22,400 tons, whilst other propylene polymer imports amounted to 23,400 tons against 18,000 tons.

Russian Polypropylene Imports (unit-kilo tons)		
	Jan-Aug 17	Jan-Aug 16
Homopolymers	37.1	55.9
Block	28.9	21.1
Random	19.3	22.4
Other	23.4	18.0
Total	108.7	117.4

SIBUR-Tobolsk resumed polypropylene production after a temporary stop in September where the catalyst was replaced. Tomskneftekhim also stopped production of polypropylene in September for scheduled repairs for the period 12-26 September.

Ufaorgsintez resumed the production of polypropylene on 26 September after the outage started on 11 September. In early September, Stavrolen stopped for scheduled repairs which will last for about two months.

Russian PVC, Jan-Aug 2017

Russian PVC imports amounted to 42,000 tons in the first eight months of 2017, 55% less than in 2016. Low demand from the domestic market and growth in domestic production volumes have become the main reason for the reduction of external supplies. Imports from China amounted to 39,400 tons in January-

Russian PVC Production (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Bashkir Soda	152.9	169.8
Kaustik	61.3	57.2
RusVinyl	203.8	209.4
Sayanskkhimplast	159.2	62.8
Total	577.2	499.2

August 2017 against 76,000 tons in the first eight months in 2016, and imports from Europe decreased to 2,000 tons against 4,900 tons.

Imports from the US dropped to 264 tons against 10,500 tons in the first eight months in 2016. During September-October, an almost complete cessation of imports of acetylene PVC imports from China was expected due to the high prices.

Russian PVC production rose 16% in January to August 2017 to 577,400 tons from 499,300 tons. RusVinyl produced 203,800 tons in the first eight months in 2017 against 209,400 tons in the same period in 2016, whilst Sayanskkhimplast increased production from 92,800 tons to 159,300 tons. Bashkir Soda reduced production to 152,900 tons against 169,800 tons in the first eight months in 2016 whilst Kaustik at Volgograd increased production to 61,300 tons from 57,200 tons. Kaustik at Volgograd stopped the production of PVC for scheduled maintenance in September for around a month.

Russian polycarbonate, Jan-Aug 2017

Kazanorgsintez produced 43,600 tons of polycarbonate in January to August 2017, 9% down on 2016. Extrusion grades accounted for 37,700 tons against 42,400 tons in the same period last year. The dominant part of the production was sold on the Russian market, although shipments fell by 6%. For export, it was shipped 4,900 tons against 6,800 tons in January to August 2016. For the whole of 2016, Kazanorgsintez produced 70,900 tons of polycarbonates, 5% higher than in 2015. Consumption of extrusion polycarbonate in the Russian market increased in 2016 by 5% to 62,100 tons.

Paraxylene-PET Chain**Russian paraxylene, Jan-Aug 2017**

Paraxylene exports from Russia totalled 69,000 tons in the first eight months in 2017 against 51,400 tons in the same period in 2016. Gazprom Neft reduced exports from 39,500 tons in January to August 2016 to 27,400 tons in the same period in 2017, whilst Kirishinefteorgsintez increased shipments from 12,000 tons to 41,000 tons.

Russian PTA Imports (unit-kilo tons)		
Country	Jan-Jul 17	Jan-Jul 16
Belgium	20.1	20.1
India	23.7	0.0
China	58.7	16.8
South Korea	20.4	26.9
Poland	2.7	16.6
Thailand	17.0	0.3
Turkey	1.0	0.0
Total	143.7	80.8

Domestic sales of paraxylene fell in the first eight months in 2017 to 122,200 tons from 125,600 tons in the same period in 2016. Ufaneftkhim reduced sales to Polief slightly from 76,400 tons to 59,900 tons, whilst Gazprom Neft increased paraxylene sales from 49,100 tons to 62,400 tons.

Russian PTA imports, Jan-Jul 2017

In the first seven months in 2017 Russian PTA imports totalled 143,700 tons against 80,800 tons in the same period in 2016. China supplied 58,700 tons in January to July 2017 against 16,800 tons in 2016, and other major suppliers in 2017 included Belgium and India with 20,100 tons and 23,700 tons respectively.

Russian MEG Domestic Sales (unit-kilo tons)		
Company	Jan-Aug 17	Jan-Aug 16
SIBUR-Neftekhim	65.6	64.4
Nizhnekamskneftekhim	27.7	11.3
Others	4.2	18.9
Total	97.5	94.5

Russian MEG, Jan-Aug 2017

Domestic sales of MEG on the Russian market amounted to 11,800 tons in August, 9.8% up on July. SIBUR-Neftekhim shipped 8,000 tons of MEG, 7% less and Nizhnekamskneftekhim also reduced deliveries by 19% to 3,300 tons. Kazanorgsintez shipped 50 tons of MEG (in July there were no supplies). Small trading companies

sold 424 tons of product (12.8% more than a month earlier). Polief purchased 6,500 tons in August, 12.9% less than in July. Obninskorgsintez increased purchases by 14.7% to 2,600 tons, whilst BaltTechProm reduced purchases by 5.1% to 1,100 tons. In the first eight months this year sales of MEG on the domestic market totaled 97,500 tons which is 3.2% up on the same period in 2016.

Exports of MEG from Russia totaled 95,900 tons in the first eight months in 2017, 9.46% up on the same period last year. Belarus accounted for 6,900 tons of MEG exports in August, followed by 456 tons to Kazakhstan and 190 tons to Ukraine. Other destinations include 22 tons to Finland and 69 tons to Bosnia and Herzegovina. Imports of MEG rose 60.5% in the first eight months in 2017 to 35,200 tons.

Aromatics

Russian Benzene Production (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Angarsk Polymer Plant	50.4	20.5
Gazprom Neft	52.1	72.7
Stavrolen	59.3	5.5
LUKoil-Perm	32.9	26.3
Magnitogorsk MK	38.7	42.0
Nizhnekamskneftekhim	153.9	137.0
Novolipetsk MK	10.7	9.8
Gazprom n Salavat	121.2	108.7
Severstal	22.4	22.7
SIBUR-Kstovo	54.8	51.1
Slavneft-Yanos	48.8	44.2
Kirishinefteorgsintez	50.5	47.2
Ryazan Refinery	15.8	23.0
Ufaneftkhim	48.8	59.2
Ural Steel	2.4	7.1
Uralorgsintez	60.4	55.7
Zapsib	38.0	49.2
Novokuibyshevsk PC	14.7	18.3
Total	875.9	800.3

Russian benzene production, Jan-Aug 2017

Russian production of benzene in August increased 11% in August over July to 99,700 tons. The increase in output in the country was the result of the completion of repairs at three enterprises. Angarsk Polymer Plant produced 6,550 tons of benzene in August, after being idle in July, and Ufaneftkhim increased production from 1,430 tons to 8,470 tons and Gazprom neftekhim Salavat increased by 22% to 7,876 tons. At the same time, SIBUR-Kstovo and Stavrolen reduced the production of benzene to 5,500 tons and 5,600 tons, respectively. In the first eight months this year benzene production totalled 875,900 tons against 800,300 tons in the same period of 2016.

Russian benzene sales, Jan-Aug 2017

Russian benzene sales amounted to 63,350 tons in August, 9% up on July. Kuibyshevazot remains the only domestic consumer of imported benzene, in August taking 501 tons from the Atyrau refinery in Kazakhstan and 313 tons from the Zaporizhzhе coke plant in Ukraine. For the first eight months in 2017, Kuibyshevazot purchased 9,200 tons of benzene, 19% more than in the same period in 2016.

Russian orthoxylene sales, Jan-Aug 2017

Domestic orthoxylene deliveries to the Russian market amounted to 13,660 tons in August, 39% more than in July. Ufaneftkhim supplied 6,860 tons following scheduled maintenance in July, whilst Gazprom Neft from the Omsk refinery shipped 6,480 tons and Kirishinefteorgsintez 320 tons.

Russian Orthoxylene Domestic Sales (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Gazprom Neft	53.5	28.9
Ufaneftkhim	37.7	22.2
Kirishinefteorgsintez	15.1	17.2
Total	106.3	68.3

Kamteks-Khimprom increased the purchases of orthoxylene by 13% to 5,910 tons, accounting for 43% of total Russian consumption, whilst Gazprom neftekhim Salavat in August reduced purchases by 5% to 1,020 tons (7%).

Russian manufacturers of paint and varnish materials increased purchases of orthoxylene in August by 82% to 3,730 tons (27% of the total Russian consumption), and manufacturers of fuel, agrochemistry, pharmaceutical and other products purchased 1,980 tons (15%). In total, from January to August 2017, orthoxylene deliveries to the domestic market amounted to 106,560 tons, 21% more than in the same period in 2016.

Russian orthoxylene exports, Jan-Aug 2017

Orthoxylene exports from Russia dropped 5.1 times in August to 1,120 tons of which Kirishinefteorgsintez supplied 780 tons, Ufaneftkhim 190 tons and Gazprom Neft 120 tons. The main destination for Russian

Russian Orthoxylene Exports (unit-kilo tons)

<i>Producer</i>	<i>Jan-Aug 17</i>	<i>Jan-Aug 16</i>
Gazprom Neft	23.7	38.4
Kirishinefteorgsintez	14.3	13.5
Ufaneftkhim	20.8	16.8
Total	58.8	68.7

ortho-xylene supplies in August was Finland (640 tons) followed by 480 tons to Ukraine. In the first eight months of 2017, Russia's exports of ortho-xylene amounted to 58,800 tons, 15% less than in the same period last year.

Russian phenol production, Jan-Aug 2017

Domestic phenol producers supplied 11,100 tons to the Russian market in August, 15% less than in July.

Kazanorgsintez shipped 1,000 tons of commodity phenol to domestic consumers, increasing 16 times over July when plant maintenance was being undertaken. Ufaorgsintez sold 5,100 tons which is 25% lower than in July and Novokuibyshevsk Petrochemical reduced shipments by 20% to 5,000 tons. Imports continue to play a role in the Russian market; Borealis AG shipped 825 tons of phenol in August, 35% less than in July.

Manufacturers of phenol-formaldehyde resins accounted for 64% of Russian merchant phenol purchases in August, accounting for 9,300 tons. Another 1,500 tons was purchased by Kuibyshevazot, twice lower than in July. The main Russian producer of antioxidants, Sterlitamak Petrochemical Plant, resumed purchases of commodity phenol in August buying 165 tons.

Russian Market Phenol Sales by Supplier (unit-kilo tons)

<i>Producer</i>	<i>Jan-Aug 17</i>	<i>Jan-Aug 16</i>
Novokuibyshevsk PC	33.8	33.1
Kazanorgsintez	7.5	6.5
Ufaorgsintez	41.8	43.8
Borealis	4.1	2.6
Total	87.1	86.0

Titan-phenol, acetone and isopropanol

Titan plans to complete construction work on the production of phenol and acetone units at Omsk Kaucuk in the near future. The plant was decommissioned in 2014 due to a major accident. In 2018, Titan plans to start work on the project for the production of isopropanol although the capacity is yet to be decided.

Technical re-equipment of phenol-acetone production facilities includes the transition to zeolitic alkylation of the production of cumene. After the accident in 2014 the management of Titan decided to reconstruct the facility with an increase in capacity by 1.5 times. Thus, Omsk Kaucuk will possess capacities of 90,000 tpa of phenol, 55,800 tpa of acetone and 170,000 tpa of cumene. The licensor of the cumene project is Badger Licensing.

Russian Caprolactam Exports (unit-kilo tons)

<i>Producer</i>	<i>Jan-Aug 17</i>	<i>Jan-Aug 16</i>
Kuibyshevazot	30.8	30.0
SDS Azot	30.8	59.9
Shchekinoazot	72.5	37.5
Total	134.1	127.4

Reconstruction will also improve the quality (minimum amount of impurities, a high proportion of the main substance) and reduce the cost of production by increasing energy efficiency to 30% of the basic technology and reducing the consumption of raw materials per unit of manufactured products by 10%.

Russian caprolactam market, Jan-Aug 2017

Russian caprolactam exports totalled 134,100 tons in the first eight months in 2017 against 127,400 tons in the same period in 2016. Although Kuibyshevazot increased shipments slightly to 30,800 tons from 30,000 tons, and SDS Azot dropped from 59,900 tons to 72,500 tons, a major increase was recorded by Shchekinoazot which shipped 72,500 tons in the first eight months, up from 37,500 tons in the same period in 2016.

Synthetic Rubber**Saudi Aramco & SIBUR in talks to create joint petrochemical projects in Saudi Arabia and Russia**

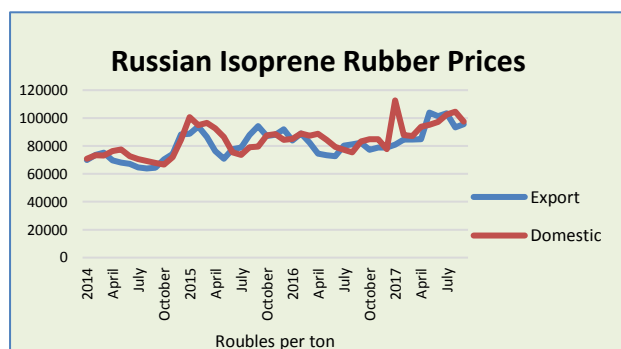
Saudi Aramco is reported to be in talks with SIBUR for forming a joint venture to produce synthetic rubber in Saudi Arabia. SIBUR, Saudi Aramco and the Russian Direct Investment Fund (RFPI) signed an agreement on cooperation on 5 October regarding general intentions to develop petrochemical projects. The venture would be Saudi Aramco's first project with a Russian company that did not involve energy exploration or production. Moreover, similarly to other oil producers' petrochemical projects conform with Aramco's strategy of boosting investments in refining and petrochemicals to reduce its reliance on crude sales. SIBUR already has jvs for synthetic rubber production in both China and India.

Russian C4s, Jan-Aug 2017

Russian producers supplied domestic consumers with 30,000 tons of C4s in August, 3% more than in July. Tomskneftekhim sold 7,600 tons of product on the domestic market, 11.5% more than in July. Angarsk Polymer Plant increased the supply of C4s 2.5 times to 1,300 tons whilst SIBUR-Kstovo reduced sales by 8% to 8,000 tons. In the first eight months of this year, Russian producers shipped 236,000 tons of C4s to the domestic market, 12.7% more than in the same period of 2016. The main reason for the growth was attributable to SIBUR, including 24% by Tomskneftekhim and the Angarsk Polymer Plant by 2.7 times.

Russian C4 Purchases (unit-kilo tons)		
Consumer	Jan-Aug 17	Jan-Aug 16
Omsk Kaucuk	29.6	36.5
Nizhnekamskneftekhim	128.0	106.5
SIBUR Togliatti	131.0	103.9
Sterlitamak Petrochemical	0.0	2.3
Total	288.5	249.2

In the first eight months in 2017, Russia imported 52,500 tons of C4s. C4 imports rose 21% in August to 12,300 tons, of which Nizhnekamskneftekhim took 12,100 tons including 3,100 tons from Karpatneftekhim in west Ukraine.



Russian demand for synthetic rubber

The production of tyres in Russia, according to forecasts, could grow by a total of 9.8% for 2017 to a total of 50.3 million units. The largest tyre manufacturers in Russia remain Nokian Tyres and Nizhnekamskshina. Exports has been an important driver in tyre production in the past couple of years, with outward shipments exceeding inward shipments for the first time in 2016. Last year exports totalled 23.9 million units which could fall to around 20 million this year due to increased consumption on the domestic market.

Russian Synthetic Rubber Exports (unit-kilo tons)		
Category	Jan-Jul 17	Jan-Jul 16
E-SBR	21.6	17.5
Block	22.4	21.2
SSBR	5.7	4.5
SBR	42.8	51.3
Polybutadiene	138.6	129.7
Butyl Rubber	71.9	82.2
HBR	74.3	65.9
NBR	13.8	18.4
Isoprene Rubber	179.7	155.3
Others	19.3	34.1
Total	590.1	580.1

Russian synthetic rubber exports, Jan-Jul 2017

Synthetic rubber exports from Russia rose slightly in the first seven months to 590,100 tons against 580,100 tons in the same period in 2016, whilst revenues rose from \$584 million to \$1075 million. Average prices per ton have risen this year although recently have started to show signs of weakening. By product category, isoprene rubber exports have seen the largest rise in volume this year, totalling 179,700 tons against 156,300 tons in the same period in 2016. Russian export and domestic prices for isoprene tend to run in parallel, sometimes domestic prices can exceed export prices,

Export sales of halogenated butyl rubber have also increased this year, rising from 65,900 tons to 74,300 tons, whilst butyl rubber shipments fell from 82,2100 tons in January to July 2016 to 71,900 tons. Regarding export destinations, China and Poland were the two largest markets for Russian rubber shipments in January to July this year. Other major markets included Hungary and India.

Central and East Europe remains the largest geographical area for Russian synthetic rubber exports.

Kazan Plant of Synthetic Rubber-silicon project

Despite the declared bankruptcy of Kazan Synthetic Rubber Plant (KZSK), the KZSK-Silicon project has been included in the list of strategic enterprises of Russia thus protecting it from closure. KZSK owns 51% of the shares of KZSK-Silicon, which was created to construct a 40,000 tpa plant for methylchlorosilanes, and the remaining 49% are held by the Federal Property Management Agency.

The company is focused on constructing a silicon plant, which would be the first of its kind in Russia. In order to prevent the bankruptcy of such organisations, the Russian government facilitates the achievement of an agreement on debt restructuring and, under certain conditions, and repays the debts, etc.

Kazan Plant of Synthetic Rubber-price issues

Difficulties for Kazan Synthetic Rubber Plant (KZSK) began in 2017 against the backdrop of high raw material prices and license revocation from Spurt Bank in Russia. Production volumes were halved, and the plant was transferred to a three-day working week. The Commission of the Federal Antimonopoly Service (FAS) is currently investigating KZSK for increasing synthetic rubber prices too much for a state defence order. The consideration period has been extended until 1 March 2018 due to the need to obtain additional materials for the case. The company Uralelastotekhnika at Ekaterinburg submitted the complaint that KZSK in 2016 increased the price of rubber SKB-30P by 4 times. This increased violated the law on State Defence Orders.

Russian synthetic rubber producer news

SIBUR is aiming to expand the branded range of synthetic rubber at Togliatti, Krasnoyarsk and Voronezh to

Russian Chemical Commodity Exports				
	Jan-Jul 17	Jan-Jul 17	Jan-Jul 16	Jan-Jul 16
Product	Kilo tons	USD Mil	Kilo tons	USD Mil
Ammonia	1,662	399	2,101	541
Methanol	903	253	903	146
Nitrogen Fertilisers	7,102	1,305	7,358	1,336
Potash	5,938	1,108	5,581	1,188
Mixed Fertilisers	6,026	1,573	5,447	1,639
Synthetic Rubber	590	1,075	584	730

meet the demand from the tyre industry and the production of rubber products for new more competitive products. SIBUR wishes to increase the range of SKD (butadiene) rubbers with three new brands and the assortment of DSKK (butadiene-styrene rubbers) will increase from four to eleven. Three of the seven grades planned for production have already been produced in the volume of pilot-

industrial lots, four more recipes are being developed. SIBUR's current total capacity stands at 570,000 tpa.

At the industrial sites of Sintez-Kaucuk and the Sterlitamak Petrochemical Plant (SNHZ), a project is being implemented to divide the outlines of the industrial-recycling water supply system. The programme for dividing the circuits of industrial-recycled water supply of Sintez-Kaucuk and SNKH became part of the project to transition to a two-year cycle of planned repairs. The result of its implementation will be the autonomy of enterprises, increasing the efficiency of stop repairs, production processes, reducing and optimizing production costs, reducing water consumption.

Russian Methanol Production (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Shchekinoazot	335.5	334.2
Sibmetakhim	559.6	561.3
Metafrax	700.5	730.0
Akron	66.2	47.9
Azot, Novomoskovsk	156.4	215.3
Angarsk Petrochemical	2.1	0.4
Azot, Nevinnomyssk	80.3	77.9
Tomet	520.3	401.5
Ammoni	140.4	77.7
Totals	2561.2	2446.1

Methanol & related products

Russian methanol production, Jan-Aug 2017

Russian methanol production dropped by 25% in August against July due to maintenance at Metafrax, and amounted to 280,000 tons. Sibmetakhim was the largest producer in August, accounting for 31% of volumes followed by Tomet 16%, Shchekinoazot and Metafrax both 17%.

In late July Shchekinoazot completed a series of repairs at its production facilities, including both methanol and caprolactam. Repair work was also carried out at

Shchekino in the production of concentrated low-methanol formaldehyde and urea-formaldehyde concentrate.

Other Russian producers in August included Azot at Novomoskovsk which accounted for 7% of production, Ammoni at Mendeleevsk 6%, Nevinnomyssk Azot 4%, and Akron at Novgorod 3%. Russian production of methanol for the first eight months in 2017 totalled 2.561 million tons against 2.446 million tons in the same period in 2016.

Russian methanol exports, Jan-Aug 2017

The maintenance outage at Metafrax in August reduced Russian methanol export availability, reducing shipments by 25% against July to 126,000 tons. Sibmetakhim accounted for 43% of the total product shipped from Russia, or 54,900 tons. Other exporters included Shchekinoazot with 22% of total

shipments, or 28,400 tons, Azot at Novomoskovsk (12%, or 15,600 tons), Tomet (9%, or 11,800 tons), Metafrax (7%, or 9,300 tons) and Ammoni (5%, or 6,300 tons).

Ammoni reported the largest rise in exports in August, rising by 5% as compared to July. Less significant was the increase in exports of methanol by Sibmetakhim (about 3%). Metafrax exported 9,300 tons of methanol in August, almost four times less than in July.

Russian Methanol Consumption (unit-kilo tons)		
Consumer	Jan-Aug 17	Jan-Aug 16
Nizhnekamskneftekhim	163.4	184.8
SIBUR Togliatti	83.0	78.2
Uralorgsintez	45.4	40.5
SIBUR-Khimprom	10.1	20.0
Tobolsk-Neftekhim	33.8	27.1
Ektos-Volga	36.1	35.1
Omsk Kaucuk	58.6	44.4
Novokuibyshevsk NPZ	51.4	34.7
Uralkhimplast	14.5	12.7
Slavneft-Yanos	10.5	10.7
Others	483.6	462.5
Total	990.3	950.6

Finland accounted for 52% of methanol shipments in August, 66,200 tons which was 40% down on July. Less significant shares fell to Slovakia (13%, or 16,700 tons), Poland (13%, or 16,300 tons) and Romania (10%, or 12,200 tons).

Consumers in Slovakia increased purchases of the Russian product in July by 55%, Romania by 31%, and Poland, by contrast, reduced purchases by almost 45%. Russian methanol exports totalled 987,100 tons in the first eight months in 2017 against 928,500 tons in the

same period in 2016.

Russian methanol domestic sales, Jan-Aug 2017

Domestic sales of methanol in Russia totalled 990,300 tons in the first eight months in 2017 against 950,600 tons in the same period in 2016. Russian domestic methanol sales amounted to 122,000 tons in August 2017, 3% up on July. Metafrax shipped 29,500 tons to domestic 27% up on July. Shchekinoazot shipped 8,600 tons, and Azot at Novomoskovsk 8,500 tons. Tomet supplied 38,000 tons, Sibmetakhim 25,000 tons and Nevinnomyssk Azot 2,700 tons. Most of the methanol from Ammoni in Tatarstan is shipped to Nizhnekamskneftekhim due to geographical proximity of around 60 km.

Nizhnekamskneftekhim-formaldehyde plant

Nizhnekamskneftekhim started operations of a new plant for the production of highly concentrated formaldehyde in September with a capacity of 100,000 tpa. The unit is linked to the company's isoprene-monomer plant. Formaldehyde is used by Nizhnekamskneftekhim for the production of isoprene by a one-stage synthesis.

Production at the new plant is carried out by the method of oxidative dehydrogenation of methanol on a stationary bed of catalyst KN and is based on Johnson Matthey Formox technology (Sweden). This facility is the first of three projects implemented as part of the programme to increase the production of isoprene rubber SKI-3 to 330,000 tpa. Work on two other projects, including the reconstruction of the production of isoprene and isobutylene, continues.

Metafrax-Casale, 2 October 2017 contract

On 2 October Metafrax signed a contract with the Swiss company Casale SA for design and construction management for the new complex of ammonia, urea and melamine at Gubakha (Perm region). The cost of the new contract is €388 million adding to the license agreement which was previously concluded with Casale. Casale's responsibilities also include the preparation and transfer of project documentation, the implementation of author supervision, training and training of personnel for the new production.

Metafrax Project-Key Points
• License agreement with Casale
• Ammonia, 900 tons per day
• Urea, 1255 tons per day
• 120 tons per day
• Completion, 1 July 2021

In 2016, the parties signed a license agreement under recommendation by Russian company NIIK. It is planned that the capacity of the new complex for ammonia, urea and melamine will comprise 900, 1255 and 120 tons per day respectively. The production of ammonia is planned to be carried out using technology that excludes the use of natural gas: purging gases from methanol production will be used instead.

Construction work is scheduled to be completed on 1 July 2021, as stipulated by the contract between Metafrax and Casale. The new production will be connected with the methanol unit and its material flows of raw materials and energy resources. Most of the urea is planned to be used by Metafrax for its own production of urea-formaldehyde concentrate and synthetic resins, in addition to the production of melamine.

Gazprom-gas supply agreements for methanol and fertiliser projects

Gazprom has concluded new contracts for the supply of gas with two prospective producers of gas chemical products in the Far East. Agreements were signed recently with Nakhodka Fertiliser Plant in the Primorsky Krai and Technolizing for the methanol plant at Skovorodino in the Amur Oblast. The term of the agreements covers the period from 2020 to 2044 inclusive.

Gazprom's gas agreements for methanol projects

- Nakhodka Fertiliser Plant-Capacity 1 million tpa
- Skovorodino-Capacity 1.2 million tpa

The Nakhodka Fertiliser Plant is being developed by the National Chemical Group and involves the launch of production of 1.1 million tpa of commercial ammonia, 2 million tpa of urea and 1

million tpa of methanol. Start-up is scheduled for 2022 and the products are planned to be delivered to the markets of Russia and East Asia.

In September 2016, a contract was signed with Korean Hyundai Engineering, Hyundai Engineering & Construction and Japanese Toyo Engineering Construction and project-service Toyo Engineering Corp. for the design, supply of equipment and construction of the complex.



At Skovorodino in the Amur Oblast Technolizing (part of the UST group) intends to organise the production of methanol with a capacity of 1-1.2 million tpa. Investments are estimated at 38 billion roubles. Products are planned to be supplied to the Asia-Pacific region. Technolizing manages the oil terminal in Skovorodino. Due to a fall in oil transshipment volumes after the launch of the ESPO pipeline, the group decided to re-profile the business and launch methanol production.

Yatek methanol project-Japanese involvement

Yakutia Fuel and Energy Company (YATEK) signed preliminary agreements with Japanese companies on the provisional supply of about 600,000 tpa of methanol. This is one of the first steps on the way to long-term cooperation and creation of sustainable production in Yakutia, which will begin work already in 2022. The capacity of the first line of the plant will be 5,000 tons per day (about 1.75 million tpa). The project is aimed at meeting the needs for methanol from the markets of Northeast Asia.



YATEK is the only company that supplies gas to the central regions of Yakutia. The share of YATEK accounts for about 86% of all gas produced in the republic, while the needs of Yakutsk are fully met at the expense of the company's resources. The construction of the deep gas processing plant is the only option whereby YATEK can increase gas production. There is no other way seen to monetize the gas from the company.

However, the prospect of the construction of a methanol plant seems questionable. This is not the first such project by YATEK, but none of them has been implemented partly due to very expensive logistics. Global

prices for methanol fluctuate in the range of \$200-300 per ton, and there are doubts if the cost of delivering methanol from Yakutia is unlikely to be cost-effective.

Komi-methanol project based on wood?

An idea to construct a methanol plant, based on coniferous wood, in the Komi region in northern Russia has been floated by the regional administration. A plant for methanol production could be built in the Troitsko-Pechora region in the Komi Republic, based at the company PechoraEnergoResurs. The republic is negotiating with a number of companies that have the technology for building diesel methanol production.

Since PechoraEnergoResurs possesses a surplus of 400,000 cubic metres of pulpwood, this is the next link that can be implemented within the framework of the new project. If constructed the plant would export most, if not all, of its production to the European market.

Relatively high share of logistics costs in the final cost of production could be excessively compensated by the availability of own raw materials, according to YATEK. The underloading of the Yakutsk-Neryungri railway branch allows YATEK could be important for shipments. The company has estimated that after the costs of production and delivery, the cost of delivery to Shanghai could amount to about \$160 for one ton, of which about \$100 represents logistics costs.

Organic chemicals

Russian butanol production, Jan-Aug 2017

Butanol production in Russia amounted to 9,090 tons in August, 36% less than in July. The share of n-butanol in the gross volume of butanols production in August 2017 was 67%, and isobutanol 33%. In August, Gazprom neftekhim Salavat reduced production by 63% to 1,820 tons due to a shortage of propylene which itself was down to maintenance. SIBUR-Khimprom at Perm reduced production by almost 5.2 times in August to 1,530 tons, and Angarsk Petrochemical produced 4,610 tons versus zero in July. Azot at Nevinnomyssk reduced production by 18% in August to 1,130 tons. For the period January to August 2017 Russian butanol production totalled 147,160 tons which was 7% down on 2016.

Russian butanol exports, Jan-Aug 2017

Butanol exports from Russia dropped several times in August to 610 tons, of which SIBUR-Khimprom supplied 194 tons, Gazprom neftekhim Salavat 187 tons, Azot 184 tons, and Dmitrievsky Chemical Plant 45 tons. Exports were delivered to Poland (32% of gross exports), Turkey (30%) and Ukraine (19%). For the first eight months in 2017 Russian butanol exports dropped 2.9 times against the same period in 2016 to 22,380 tons.

Russian N-butanol Exports (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Gazprom n Salavat	3.2	46.0
SIBUR-Khimprom	4.0	3.9
Angarsk Petrochemical	1.6	0.5
Azot Nevinnomyssk	1.6	0.3
Dmitrievsky Chemical Plant	1.3	0.8
Total	11.7	51.4
Russian Isobutanol Exports (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Gazprom n Salavat	4.6	4.8
SIBUR-Khimprom	6.1	12.4
Angarsk Petrochemical	0.3	0.0
Dmitrievsky Chemical Plant	0.1	0.1
Total	10.9	17.3

Russian butanol domestic sales, Jan-Aug 2017

Domestic merchant sales of butanols totalled 38,900 tons in the first eight months in 2017, against 38,700 tons in the same period in 2016. Due to the start-up of the new acrylates plant in January this year Gazprom neftekhim Salavat reduced merchant sales on the domestic market from 11,000 tons to 2,800 tons.

Only Angarsk Petrochemical Company increased merchant sales in the first eight months in 2017, rising from 1,400 tons to 8,800 tons. This has allowed the plant to redirect exports to the domestic market. The impact of the new Salavat acrylates complex has thus been to reduce availability from Salavat on the

merchant market, but in particular to reduce exports. Amongst consumers the Dzerzhinsk site of SIBUR carried out scheduled in September on the production of acrylic acid and acrylic esters. During the shut-down repair of production, regular repair work was performed on the main process equipment, and the catalyst was reloaded.

Russian plasticizer alcohols, Jan-Aug 2017

DOP imports into Russia amounted to 1,530 tons in August against 1,010 tons in July. In August 2017, the Korean company Aekyung accounted for 1,450 tons of DOP imports and from Poland Boryszew with 40 tons. In total, from January to August 2017, DOP imports into Russia totalled 3,640 tons which is 87% more than in the same period last year.

Russian Butanol Domestic Sales (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Gazprom n Salavat	5.3	18.9
SIBUR-Khimprom	22.1	27.4
Angarsk Petrochemical	8.8	1.4
Azot Nevinnomyssk	1.6	3.7
Totals	38.9	38.7

Domestic producer Roshalsky Plasticizers Plant is undertaking investments into the technical re-equipment of the production complex, including eight new buildings of the enterprise will be built, as well as engineering infrastructure facilities. As part of the expansion of the company, it is planned to increase warehouse space.

Russian production of phthalic anhydride amounted to 9,290 tons August, 6% less than in July. Kamteks-Khimprom increased production by 4% to 9,170 tons and Gazprom neftekhim Salavat dropped production by 89% to 120 tons (1%). In the first eight months in 2017 Russian production totalled 74,290 tons which was 31% up on 2016.

Russian Phthalic Anhydride Production (unit-kilo tons)		
Producer	Jan-Aug 17	Jan-Aug 16
Gazprom n Salavat	5.8	5.3
Kamteks	68.5	51.5
Total	74.3	56.9

Russian exports of phthalic anhydride amounted to 4,650 tons in August, of which 20% went to India, Egypt (13%), Poland (13%), Finland (10%), Peru (9%) and Uzbekistan (8%). In the first eight months in 2017, phthalic anhydride exports from

Russia rose 30% over 2016 to 34,140 tons.

Metafrax-pentaerythritol, Jan-Aug 2017

Metafrax produced 16,150 tons of pentaerythritol in the first eight months in 2017, 5% more than for the same period in 2016. The plant was shut for maintenance in September. Metafrax is investing around a billion roubles into the modernisation of the pentaerythritol plant, which is expected to be completed in 2018. The concept provides for the modernisation of production in three phases.

Nizhnekamskneftekhim restarts neonol production

In the first part of October Nizhnekamskneftekhim restarted the production of neonols. Work at the plant of oligomers began in July, simultaneously with the major overhaul of ethylene oxide production. Neonol production has been idle for several years and is located near the trimer plants at Nizhnekamsk. In late September this year, Nizhnekamskneftekhim purchased 480 tons of phenol for the production of neonol for delivery in October 2017.

Russian Organic Chemical Exports		
Product	Jan-Jul 17	Jan-Jul 16
N-Butanol	10.9	42.6
Isobutanol	10.8	15.8
2-EH	16.6	24.2
Pentaerythritol	6.5	4.7
Phenol	2.6	4.4
Ethylene Oxide	9.9	11.1
Formaldehyde	12.2	16.6
Acetone	14.4	0.0
Acetic Acid	39.0	40.7
VAM	22.4	36.5
Butyl Acetate	17.5	13.8
Butyl Acrylate	23.5	19.4
Phthalic Anhydride	14.6	20.3

Saratovorgsintez-acrylamide project

Russian engineering company NIIK has been instructed to prepare project documentation for a JV between Lukoil and French company SNF for the delayed acrylamide project at Saratov. NIIK is responsible for developing project documentation for the production of acrylamide and polyacrylamide at Saratovorgsintez. The list of its obligations under the contract includes the development in full of project documentation for the new production, its preparation for the passage of Glavgosexpertiz. The work must be completed by the end of 2017.

The first stage of construction could be completed in 2019, the project is designed to produce 60,000 tpa of products with the possibility of expanding to 150,000 tpa. Investments in the first place will amount to 2.5 billion roubles, 160 jobs will be created.

The start of the joint project of Lukoil and SNF was initially agreed in 2012 and construction of the SNF Vostok plant was set to begin in 2014. Plant commissioning was intended for 2016, but the project ran into problems. Under a revived outline, the plant will house two workshops for the production of acrylamide and four for the production of powdered polyacrylamide. Saratovorgsintez operates acrylonitrile production capacity of 150,000 tpa (raw materials for polyacrylamide) and sodium cyanide capacity of 48,000 tpa.

Other products

Calcium hydroxide Novocheboksarsk

Khimprom at Novocheboksarsk is working on its project to launch the production of calcium hydroxide (hydrated lime), consisting of a capacity of 40,000 tpa to be launched in 2018. The developer of the basic project and equipment supplier is the Italian company Cimprogetti. Calcium hydroxide is used primarily in the production of building materials: concrete, plaster mixes, etc. Slaked lime is also used in agriculture.

Orgsintez Prolab

Russian company Orgsintez Prolab is undertaking a project to build a production unit for acrylic dispersions at Dzerzhinsk. The plant is scheduled to be launched in 2018, and after commissioning of the second phase could result in capacity of 50,000 tpa. This would meet about 65-70% of the market needs currently covered by Chinese imports. Investments in the project are estimated at 3 billion roubles. 250 jobs will be created.

Acrylic dispersions will be used to produce an adhesive tape on the capacities of Orgsintez Prolab in Pushchino (Moscow region). In the period 2021-2022 the company aims to transfer this production unit to the Nizhny Novgorod region. Raw materials for the production of acrylic dispersions the company expects to receive from the Nizhny Novgorod site SIBUR, which produces more than 40,000 tpa of acrylates.

Dugalak-new polyester resin plant

Dugalak plans to launch a new workshop for the production of polyester resins in mid-2019. The production will be located on the company's site in Yaroslavl, including a capacity of 25,000 tpa for polyester resins. Dugalak was established in 1999 with 100% foreign capital, is engaged in the production of polyester resins and gelcoats. At its Russian site Dugalak produced 11,000 tons of products in 2016.

The Russian polyester resin market is estimated at 41,600 tons in 2016, and from a small base can be expected to rise by high single digit levels in the next few years. The main factor constraining the growth in the production of polyester resins in Russia is the shortage of raw materials, including isophthalic acid, maleic anhydride and epichlorohydrin.

SDS Azot-Mitsubishi

SDS Azot intends to attract Japanese companies to prepare a feasibility study for a new gas chemical complex in the Kemerovo region. In September SDS Azot, Sojitz Corporation and Mitsubishi Heavy Industries signed a memorandum on the construction of a gas chemical complex at Kemerovo. Under the terms of the memorandum, it is the intention to SDS Azot to build a modern, highly efficient and environmentally friendly gas-chemical complex for the production of high value-added products.

SDS Azot unites KAO Azot (Kemerovo) and LLC Angarsk Nitrogen Fertiliser. It has facilities for the production of 1,055 million tpa of ammonia, 957,000 tpa of ammonium nitrate, 515,000 tpa of urea, 314,000 tpa of ammonium sulphate, and 116,000 tpa of caprolactam.

Rosneft-ChemChina coatings

Subsidiaries of Rosneft and Chinese ChemChina continue to work on the production of materials in the Russian Far East for shipbuilding for Arctic class ships. Testing of materials is to be carried out during the winter navigation period 2017-2018. Control over the state of the coatings will be carried out by the subsidiary ChemChina Chemical Research Institute (MCRI). Also, MCRI is responsible for

providing the materials themselves, checking the quality of their application. At the end of last year, Rosneft and ChemChina entered into an agreement on the creation of a joint venture to be located at the Bolshoi Kamen shipyard in Primorsky Krai. The capacity of the JV will be 50,000 tpa of paint and varnish and polymer materials. All products are planned to be used at the Zvezda complex at Bolshoi Kamen.

MDI/TDI Imports for Eurasian Customs (unit-kilo tons)

Product	Jan-Jul 17	Jan-Jul 16
MDI	74.8	71.6
TDI	23.0	21.7

Russian MDI & TDI projects?

The Ministry of Industry and Trade of the Russian Federation held a meeting on 25 September to provide raw materials for Russian polyurethane manufacturers. The meeting was

attended by representatives of industry associations, research institutes, consumers and manufacturers of PU, system houses. The need to create domestic production of isocyanates has been discussed in the industry for a long time. The import of isocyanates to the Russian Federation in 2016 was estimated at 153,000 tons, of which MDI accounted for 113,000 tons. The largest suppliers of MDI to Russia include Dow Europe, Wanhua Chemical and BASF, and the leaders in import of TDI include Covestro, BASF and BorsodChem.

In terms of projects Evrokhim is the latest company to indicate that it wants to construct a plant, adding to other project ideas proposed by Nizhnekamskneftekhim and Promsintez. Evrokhim is in talks with ChemChina to create a complex for the production of isocyanates based at Azot at Novomoskovsk, with a proposed total capacity of around 200,000 tpa. The main challenge to building isocyanate plants in Russia remains the technology license. At the same time although demand is rising for MDI and TDI, the market is considered too small to justify a world scale plant where the full economies of scale can be achieved.

Ukraine

Ukrainian polymer imports, Jan-Aug 2017

PVC imports into Ukraine totalled 72,400 tons in the first eight months in 2017, versus 72,300 tons in 2016. Imports from the US amounted to 32,900 tons in the first eight months in 2017 against 43,200 tons in the same period in 2016, and shipments from Europe rose to 25,600 tons from 24,500 tons. Russian supplies rose to 12,000 tons from 3,900 tons.

Ukrainian Polypropylene Imports (unit-kilo tons)		
Category	Jan-Aug 17	Jan-Aug 16
Homo	61.5	61.5
Block	8.6	7.5
Random	8.6	9.1
Other	1.4	1.5
Total	80.1	79.3

Polypropylene imports into Ukraine rose 1% in the first eight months to 80,100 tons against 79,300 tons. Homopolymers accounted for 61,500 tons in January to August 2017 and block copolymers rose to 8,600 tons from 7,500 tons. Random copolymers

dropped slightly from 9,100 tons to 8,600 tons.

Ukrainian imports of polyethylene fell by 12% in the first eight months in 2017 to 166,000 tons, including 21,700 tons in each month of August and July. HDPE imports declined to 68,700 tons from 81,400 tons in the first eight months in 2016 and LDPE imports dropped 2% to 43,900 tons.

HDPE imports have been affected by the start-up of the Karpatneftekhim plant. LLDPE imports saw a rise from 38,500 tons to 42,800 tons. Imports of EVA totalled 10,500 tons against 8,800 tons in January to April 2016.

Ukrainian methanol, Jan-Aug 2017

Imports of methanol into Ukraine amounted to 3,300 tons in August, compared to 1,800 tons in July. Russian producers accounted for 82% of inward shipments and 17% was attributed to Belarussian producer Azot. The average cost of imported methanol purchased by Ukrainian consumers in August in dollar terms decreased relative to July by only 1%, and in the hryvnia by 2%. By the end of the month, the average price of the product imported into the country was \$330, against the fixed price a month earlier \$355, respectively, per ton of DAF border Ukraine.

On 20 September, the Ukrainian Energy Exchange (UEB) held the first electronic exchange auctions in Ukraine for the purchase of methanol at which Ukrzavdydobuvannya purchased 9,000 tons of methanol. The absence of price indicators for this product in Ukraine, such purchases were previously associated with corruption, while exchange linking them to world indicators allows to solve this problem.

Karpatneftekhim restarting export activity

In August, Karpatneftekhim from Kalush increased the volume of exports of propylene to 5,460 tons which is 36% more than in July. The increase in supplies is due to the increased capacity utilization at Karpatneftekhim. In the first two months of production, Karpatneftekhim exported 9,480 tons of propylene all of which was delivered to Polish company Grupa Azoty ZAK at Kedzierzyn. Karpatneftekhim has also started exporting C4s, shipping 3,100 tons to Nizhnekamskneftekhim in August.

Ukrainian imports of phthalic anhydride/DOP

Imports of DOP into Ukraine amounted to 489 tons in August against 388 tons in July. Deza supplied

56% in August and Boryszew 44%. In the first eight months imports of DOP into Ukraine amounted to 2,610 tons, against 2,589 tons in the same period last year. Imports of phthalic anhydride into Ukraine amounted to 529 tons in August, against 380 tons in July.

In August 2017, phthalic anhydride was supplied to Ukraine mainly by the Belarusian company Lakokraska at Lida 420 tons, followed by 67 tons from Petkim Petrokimya and 20 tons from Kamteks-Khimprom. In the first eight months of 2017, the import of phthalic anhydride into Ukraine rose 1% to 3,020 tons.

Belarus

**Belarusian Acrylonitrile Exports
(unit-kilo tons)**

Product	Jan-Jul 17	Jan-Jul 16
Russia	1.3	2.1
Hungary	1.1	4.0
India	2.0	0.0
Iran	2.8	0.4
Netherlands	12.6	4.0
Romania	0.1	0.3
Turkey	8.5	12.1
UAE	0.2	0.0
Total	28.5	22.9

Belarusian chemical production, Jan-Aug 2017

Belarusian methanol production amounted 7,500 tons in August, 13% down on July. In the first eight months in 2017 production totalled 53,300 tons against 41,400 tons in the same period in 2016. Production of caprolactam decreased by 33%, to 6,000 tons. Belarus produced 3,970 tons of propylene and 6,490 tons of ethylene, or 4% and 5% less than in July.

Naftan completed major repairs on the xylene isomerization unit at the end of September. The plant was decommissioned in August, and in the first half of September an act on early completion of work was signed. Due to maintenance Naftan produced 5,800 tons of benzene in August, 38% less than in July.

**Belarusian Phthalic Anhydride Exports
(unit-kilo tons)**

Country	Jan-Jul 17	Jan-Jul 16
Russia	5.4	5.4
Ukraine	1.9	2.4
India	0.936	1.1
Germany	0.7	0.1
Poland	0.3	4.2
Others	2.1	1.2
Total	11.3	14.5

During the eight months of 2017, Polymir produced 29,100 tons of propylene, which is half as much as in the same period of 2016. The production of ethylene from January to August 2017 decreased by 43%, to 46,140 tons.

Belarusian phthalic anhydride producer Lida Lakokraska on 15 September launched the second line with a capacity of 29,000 tpa. It is expected that the company will be able to produce about 48,000 tpa. Lakokraska is considering the possibility of a significant increase in the volume of supplies of its products to the Russian market, having shipped only 7,600 tons in 2016.

Lakokraska also plans that after the completion of the modernisation of the phthalic plant, the waste gases will be capable of producing up to 1,900 tpa maleic anhydride. Currently, Lakokraska buys up to 150 tons of maleic anhydride in China to provide raw materials for its own production of alkyl resins.

**Belarusian Organic Chemical Exports
(unit-kilo tons)**

Product	Jan-Jul 17	Jan-Jul 16
Acrylonitrile	28.5	22.9
Caprolactam	7.6	6.5
Phthalic anhydride	11.3	14.5
Methanol	4.4	21.0

were the Netherlands and Turkey. In other areas of chemical trade, methanol shipments fell to 4,400 tons in January to July 2017 from 21,000 tons in the same period in 2016. This is due to major market changes which has transformed Belarus from a net exporter of methanol to net importer.

Belarusian organic chemical trade, Jan-Jul 2017

Belarusian acrylonitrile exports totalled 28,500 tons in the first seven months in 2017 against 22,900 tons in the same period in 2016. The two largest destinations for Belarusian exports

Belarusian PTA Imports (kilo tons)

Country	Jan-Jul 17	Jan-Jul 16
Belgium	4.391	0
Poland	6.3	15.6
Russia	3.2	1.2
South Korea	23.8	12.9
Portugal	0.0	1.0
Thailand	0.0	1.1
Turkey	1.0	0.0
Others	2.0	0
Total	40.7	31.8

Caprolactam exports amounted to 7,600 tons in the first seven months from 6,500 tons in January to July 2016 and phthalic anhydride shipments from Belarus dropped slightly to 11,300 tons from 14,500 tons.

Regarding imports, PTA and MEG are two of the main chemical products required by Belarus for usage in the production of polyester/PET. Imports of PTA in the first seven months totalled 40,700 tons against 31,800 tons in the same period in 2016. The main supplier of PTA to Belarus in January to July 2017 was South

Korea with 23,800 tons against only 12,900 tons in the same period last year. MEG imports into Belarus amounted to 39,613 tons in the seven months in 2017, of which Russia supplied almost all, against a total of 39,000 tons in January to May 2016.

Mogilevkhimvolokno-first phase of investment strategy

Mogilevkhimvolokno has begun to implement the first phase of the investment project which will allow the company to produce up to 50,000 tons of polyester products from PTA. The company plans to complete the reconstruction by 2020.

Central Asia/Caucasus**SOCAR-methanol production August 2017**

In August, methanol production in Azerbaijan amounted to 46,000 tons, 17% more than in July. For the first eight months in 2017 the production of methanol by SOCAR totalled 186,000 tons of which 90% of the produced product was exported through the ports of Kulevi and Baku. In 2017, SOCAR Methanol intends to achieve production volumes of 250,000 tons. The company started exporting methanol to Kazakhstan through the Caspian Sea in September.

SOCAR Methanol-production targets

- 2017-250,000 tons
- 2018-350,000 tons
- 2019-600,000 tons

250,000 tpa. In 2017-2018 the company plans to carry out major repairs to increase the production load and capacity of the plant up to 650,000 tpa. In the future, the company is considering a move to a two-year turnaround. Assessment is underway regarding the possible development of other products such as formaldehyde, and additives for fuels.

SOCAR Methanol Company plans to reach 80-90% of capacity by 2019. The plant produced 80,000 tons in 2016, and the target for 2017 is

SOCAR completes overhaul of cracker and polyethylene plant

Azerkhiymya, part of SOCAR, completed the overhaul at the ethylene-polyethylene plant in Sumgait, stopping from 10 August to 20 September. The stoppage is part of the modernisation programme designed to

Azerbaijan Chemical Exports (unit-kilo tons)

Product	Jan-Sep 17	Jan-Sep 16
Polyethylene	56.3	68.6
Propylene	29.2	30.6
Isopropanol	9.1	13.5
C4s	21.6	21.0

increase the plant's capacity in order to provide feedstocks for SOCAR Polymer's new polypropylene plant. As a result of the modernisation work recently completed the capacity of the propylene plant has increased from 60,000 tpa to 150,000 tpa. In the second stage of the programme in 2018 the plant's capacity will be increased to 185-190,000 tpa.

Regarding SOCAR-Polymer, the intention is to start the polypropylene plant in January-March 2018, followed by the polyethylene plant in July-September 2018. The total cost of the SOCAR Polymer project is estimated at \$750 million, of which 60% of the funds are financed from Gazprombank.

Uzbek chemical duties

Uzbekistan has nullified customs duties on certain categories of imported polymer raw materials. Fees for the importation of several goods into the country were cleared from 10 September. The fee will cease to be imposed on certain goods from group 39: polymers of propylene, styrene, halogenated olefins, acrylic acid, vinyl acetate in primary forms. The duty rate for ethylene polymers in primary forms will be reduced from 30 to 5%.

Duties on a number of goods from HS group 40, including rubber, rubber and products from them, were zeroed. Zero became a duty for importers of petroleum, amino-aldehyde, phenol-aldehyde and ion-exchange resins. In April, Uzbekistan abolished excises on imported polymer products and pipe products from Russia. Changes in customs and tariff regulation touched 42 commodity items. Earlier import duty for their importers was 10%, for some countries there was a customs restriction of 40%.

SOCAR-chemical exports, Jan-Sep 2017

Azerbaijan exported 56,265 tons of LDPE in the first three quarters in 2017, 9,107 tons of isopropyl alcohol (isopropanol), 29,249 tons of propylene and 21,616 tons of C4s were exported.

KOGAS-Ustyurt Petrochemical Complex

South Korean company KOGAS announced on 26 September that the company achieved the first dividend income of approximately \$25 million from the Surgil Gas Field Development and Gas Chemical Plant. The Surgil project is a high-value-added package-type resources development

project through which KOGAS jointly develops a gas field in Surgil and produces gas in concert with Uzbekneftgaz. The produced gas is sent to Ustyurt Gas Chemical Plant which is 110 km away to produce and sell polymer chemicals and sell remaining natural gas. KOGAS's local JV in Surgil posted \$600 million in sales in 2016 by selling 430,000 tons of polymers, 305,000 tons of gas and other by-products.

Relevant Currencies

Czech crown. Kc. \$1= 20.852. €1 = 27.444: Hungarian Forint. Ft. \$1 = 229.253. €1 = 310.141: Polish zloty. zł. \$1=3.016. €1 =4.14 Ukrainian hryvnia. \$1 = 22.9 €1 = 24.9: Rus rouble. \$1 = 65.2 €1= 73.70

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