

# 2019

## INDUSTRIAL CHEMICAL INDUSTRY: Performance Snapshot Q2/First Half

### HIGHLIGHTS

- Shipments of industrial chemicals increased 1.1% in the first half of 2019 compared to the first half of 2018. Petrochemicals was the only sub-sector to show a decline in shipments year over year, while other sub-sectors rose between 4.4%-6.1%. Industrial gas shipments increased dramatically by 26.9% year over year.
- Exports for industrial chemicals declined 1.6% in the first half of 2019 compared to 2018. Increased exports from Inorganic Chemicals and industrial gases were not enough to offset declines in petrochemicals and organic chemicals.
- Industrial Chemical GDP grew 2.4% in Q2 erasing the decline seen in Q1.
- Rail car shipments of industrial chemicals fell 1% in Q2 from Q1 2019.



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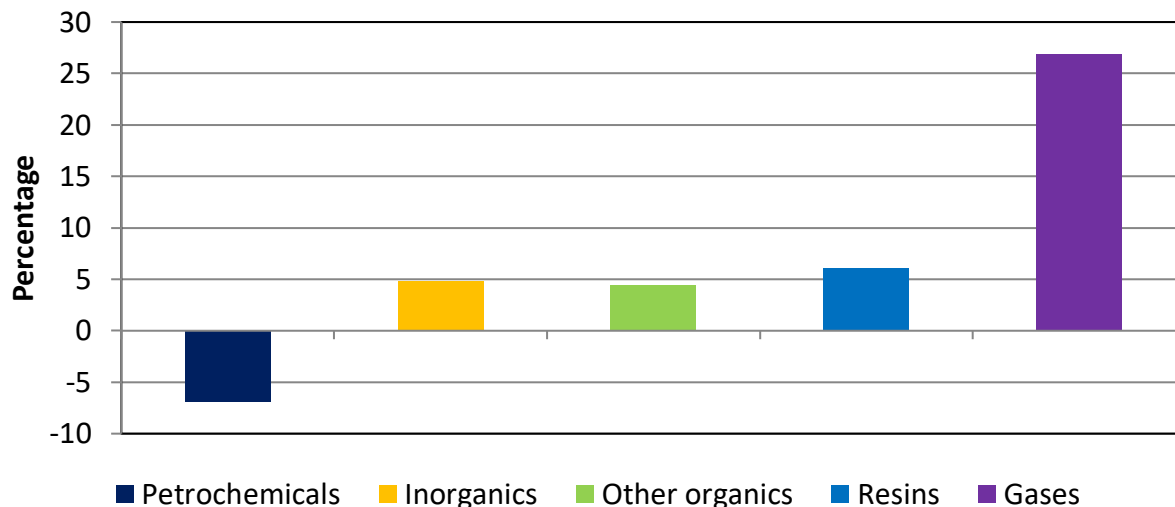


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## > Shipments

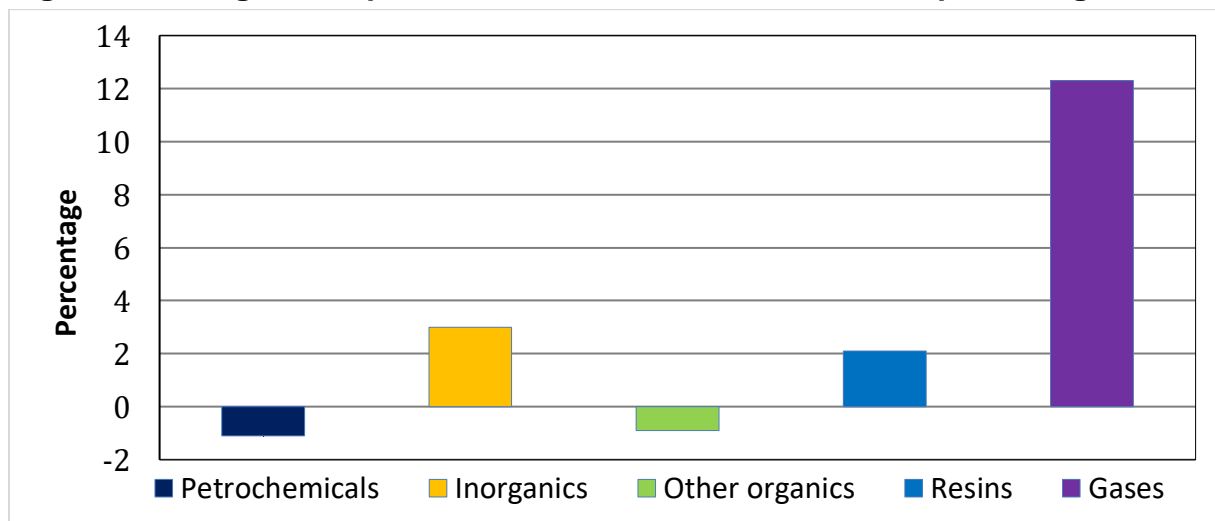
Shipments in dollar terms for the industrial chemical industry increased by 1.1% in the first half of 2019 compared to 2018. Four out of five sub-sectors showed growth in the first half of 2019. Industrial gases (26.9%) had the highest growth rate while resins (6.1%), inorganic chemicals (4.8%) and other organic chemicals (4.4%) also experienced gains. Petrochemical shipments were the only subsector to register a decline year over year, with shipments dropping by 6.9%.

**Figure 1: Change in Shipment Value, First Half 2019 vs. First Half 2018, in percentage**



On a quarter-over-quarter basis, industrial chemical shipments grew by 0.6% from Q1 2019. Industrial gas shipments led growth among subsectors, advancing 12.3% while inorganic chemicals posted a 3% gain. Resins shipments grew by 2.1% in the quarter. Two subsectors saw declines in the second quarter with petrochemical shipments falling by 1.1% and other organic chemicals declining by 0.9%.

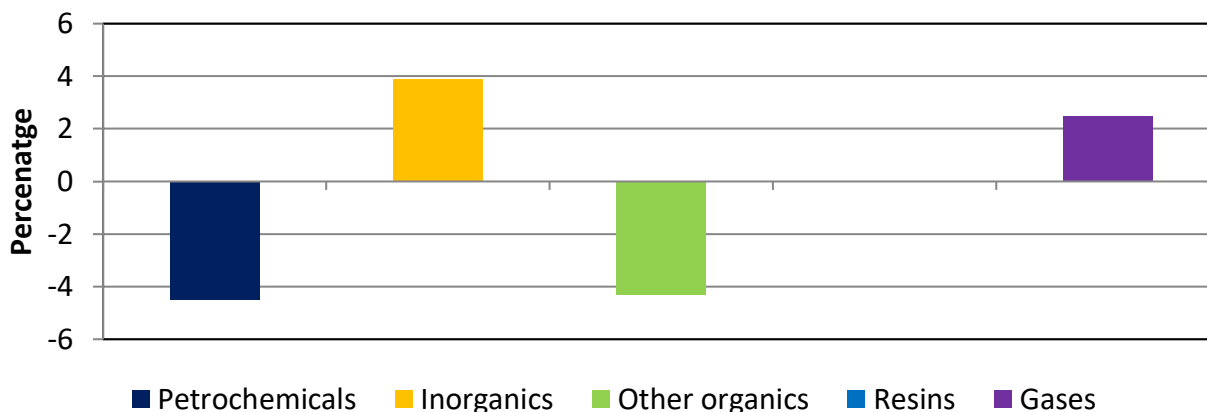
**Figure 2: Change in Shipment Value, Q2 2019 vs. Q1 2019, in percentage**



## > Exports

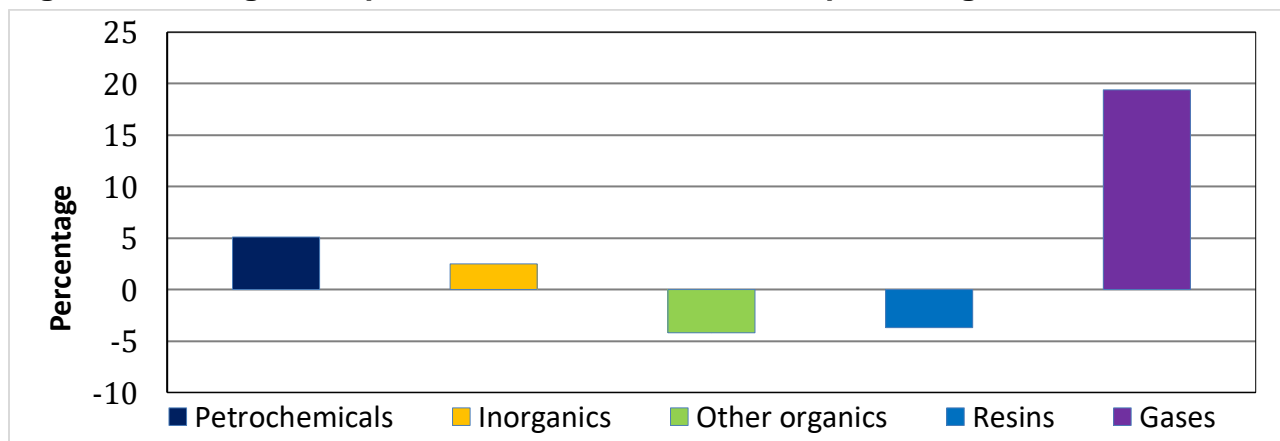
On a dollar basis, exports of industrial chemicals were down 1.6% in the first half of 2019 compared to the same period in 2018. Inorganic chemicals continued their strong showing in 2019 increasing 3.9% so far this year, while industrial gases also posted gains of 2.5%. Resin exports were essentially flat in the first half of 2019, which isn't exactly a surprise as 2018 was a very strong year. Petrochemicals continued to struggle in the first half with exports down 4.5% followed closely by other organic chemicals, which declined by 4.3%.

**Figure 3: Change in Exports, First Half 2019 vs. First Half 2018, in percentage**



However, when we look at a quarter-over-quarter basis (see Figure 4 below), industrial chemical exports showed pockets of strength in Q2 2019 compared to Q1, with exports increasing by 1.3%. Petrochemical exports recovered some of the ground lost in Q1 with exports growing by 5.1%. Inorganic chemicals also advanced, climbing 2.1%. The biggest gain this quarter came in industrial gases where exports climbed by 19.4%. Weakness was observed in the organic chemicals sector, where exports declined by 4.2%, and in resins where we saw a 3.7% decline in Q2. Table 1 and Table 2 help explain some of the headline numbers we see in Figures 3 and 4.

**Figure 4: Change in Exports, Q2 2019 vs. Q1 2019, in percentage**



Changes in export volumes and dollar values for specific commodities on a year-over-year basis are shown in Table 1.

**Table 1: Change in Exports of Selected Commodities, First Half 2019 vs. First Half 2018, in percentage**

<b>Commodity</b>	<b>change, tonnage basis, %</b>	<b>change, \$ basis, %</b>
<b><i>Petrochemicals</i></b>		
Propylene	-2.1	3.4
Butadiene	-13.6	-10
Higher olefins	16.4	20.2
Benzene	17.8	-4.0
Styrene	-1.3	-24.6
<b><i>Inorganic chemicals</i></b>		
Chlorine	29.7	50.0
Hydrochloric acid	-7.1	2.6
Sulphuric acid	-7.0	59.1
Sodium hydroxide	1.0	-28.0
Titanium dioxide	81.8	47.8
Sodium chlorate	-7.8	No change
Aluminum sulphate	-29.1	-6.5
Sodium silicates	52.7	53.0
Hydrogen peroxide	13.2	11.2
<b><i>Other organic chemicals</i></b>		
Methanol	15.8	6.6
Isopropyl alcohol	11.5	5.6
Ethylene glycol	11.2	-18.4
<b><i>Synthetic resins</i></b>		
Polyethylenes	3.9	-7.9
Butyl rubbers	-13.5	-11.0
<b><i>Specialty chemicals</i></b>		
Palmitates and stearates	-7.8	No change
Orthophthalates	-14.7	-5.7
Azo compounds	-27.9	16.6
Cyanine dyes	-12.5	-5.7
Azo dyes	-15.3	1.7
Other fatty acids	-36.1	-68.7

Petrochemical exports continued to have a difficult first half of the year. On the positive, tonnage metrics for the majority of commodities tracked recovered and in several cases, have exceeded their 2018 levels. However, pricing impacts, particularly the 24.6% decline in styrene prices, continue to weigh on the subsector. For the majority of inorganic chemicals and other organic chemicals tracked, the first half of 2019 has been particularly strong on both volume and pricing

metrics. Pockets of weakness can be observed with aluminum sulphate exports decreasing particularly heavily on a volume basis, while pricing metrics declined significantly for sodium hydroxide and ethylene glycol year over year. Synthetic resins volumes have grown slightly from 2018, but we can see that the pricing metrics have turned negative in the first half of this year. Butyl rubber exports are down across both metrics in the first half of this year. Specialty chemicals continued to have a difficult beginning to 2019, with weakness seen across volume and pricing metrics for all the commodities tracked.

Below in Table 2, we can see the different values on a quarter-by-quarter basis with some differences from the year-over-year figures.

**Table 2: Change in Exports of Selected Commodities, Q2 2019 vs. Q1 2019, in percentage%**

Commodity	change, tonnage basis, %	change, \$ basis, %
<b><i>Petrochemicals</i></b>		
Propylene	4.1	12.7
Butadiene	-31.0	-28.4
Higher olefins	13.5	18.9
Benzene	-10.3	-21.9
Styrene	1.9	-23.9
<b><i>Inorganic chemicals</i></b>		
Chlorine	18.2	13.7
Hydrochloric acid	17.3	34.3
Sulphuric acid	5.1	95.6
Sodium hydroxide	-8.8	No change
Titanium dioxide	227	180
Sodium chlorate	-4.3	-3.3
Aluminum sulphate	21.1	19.2
Sodium silicates	62.4	72.1
Hydrogen peroxide	2.2	1.7
<b><i>Other organic chemicals</i></b>		
Methanol	13.5	1
Isopropyl alcohol	-19.1	-39.5
Ethylene glycol	16.7	-18
<b><i>Synthetic Resins</i></b>		
Polyethylenes	No change	-4.8
Butyl rubbers	-9.5	-14.1
<b><i>Specialty Chemicals</i></b>		
Palmitates and stearates	-6.7	-8.9
Orthophthalates	175.4	122.6
Azo compounds	-8.1	-7.5
Cyanine dyes	-11.6	-15.3
Azo dyes	-26.8	-27.6
Other fatty acids	20.5	20



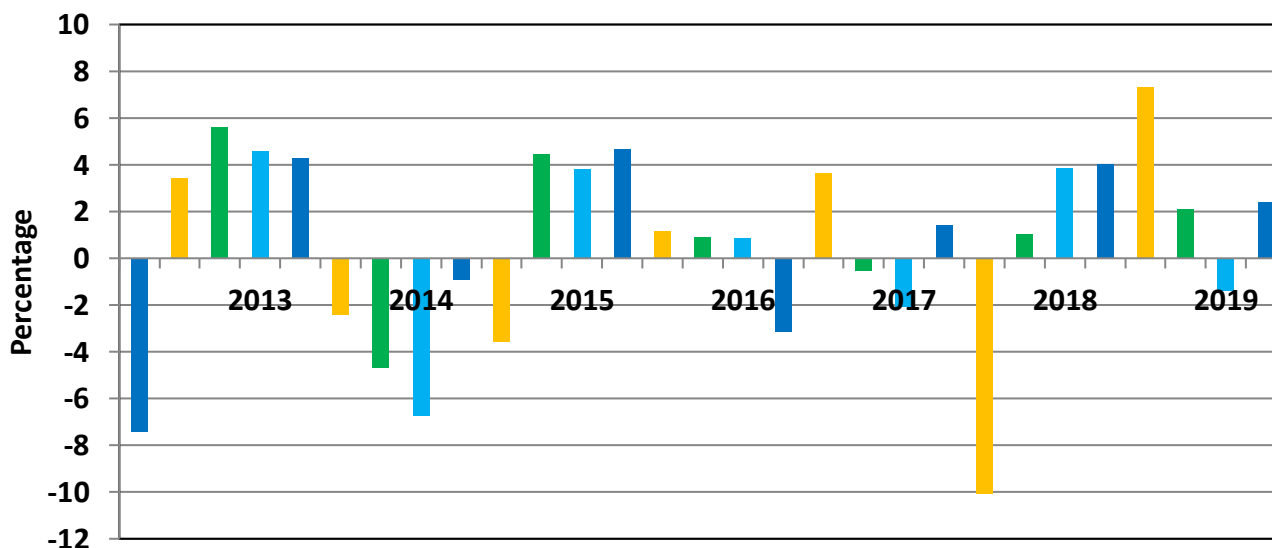
Petrochemical exports were particularly volatile in Q2 2019, with several products showing steep declines in both volume and pricing metrics, while others showed significant increases in both metrics quarter over quarter. Inorganic chemicals had a very strong quarter with five of 10 commodities tracked posting double-digit increases in volume and pricing metrics and only a few select commodities showing weakness. Other organic chemicals had a mixed quarter, with export volumes rebounding in two-thirds of commodities tracked, but with pricing weakness seen in all three, even with a 1.0% increase in methanol prices.

For synthetic resins, we see volumes in Q2 as steady, but pricing weakness has continued in this quarter. Butyl rubbers continue to face both volume and pricing weakness and 2019 has been a challenging year for rubber exports so far compared to 2018. For speciality chemicals, Q2 2019 was softer than Q1 2019 across most of the products CIAC tracks. However, both orthophthalates and other fatty acids had very strong quarters.

## > Gross Domestic Product (GDP)

GDP for industrial chemicals grew by 2.4% in the second quarter of 2019 compared to Q1 2019. This increase was large enough to offset the 1.4% decline seen in Q1 2019 and means the industrial chemistry sector is now in positive growth territory for 2019 over 2018 levels. Given that the GDP figure is an aggregate calculation of the different subsectors seen in Figures 1-4, we can estimate that the strength of the non-petrochemicals subsectors and the rebound from transportation related issues in Q1 are drivers of Q2's impressive GDP rebound.

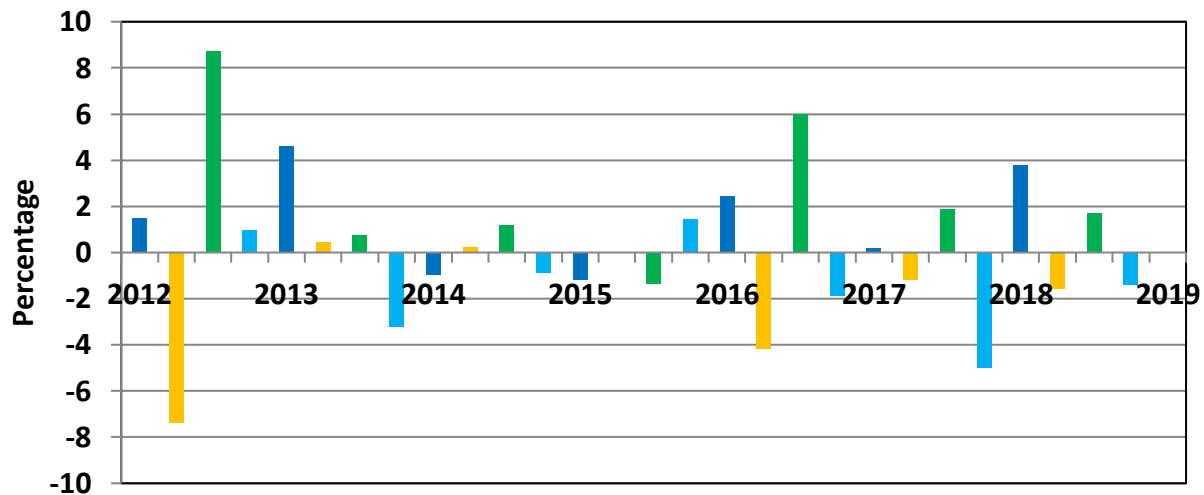
**Figure 5: Quarter-Over-Quarter Change in GDP for Industrial Chemicals, in percentage**



## > Rail Car Shipments

The number of rail cars used to ship industrial chemicals (Figure 6) posted a slight decline of 1.0% in Q2 2019 from Q1 levels. However, the volume of goods shipped within those cars was 1.6% higher than Q1 2019 and 2.0% higher than in Q2 2018.

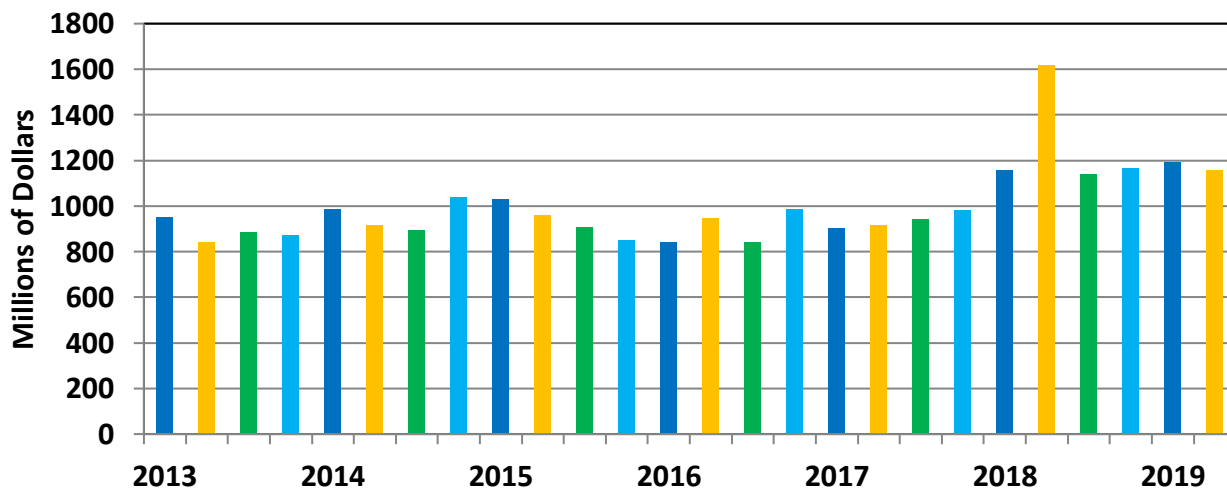
**Figure 6: Quarter-Over-Quarter Change in Rail Cars Shipping Industrial Chemicals, in percentage**



## > Profits

Operating profits (Figure 7) for industrial chemicals in the second quarter were \$1156 million - a slight decline from Q1 2019 levels, but still very high by historical standards.<sup>1</sup>

**Figure 7: Quarterly Operating Profits for Industrial Chemicals, in Millions of Dollars**



<sup>1</sup> Periodically Statistics Canada revises its data packages. As a result, CIAC would like to note that profit data in for this quarter will appear differently than that seen in the Q1 Statistical Release and perhaps in releases seen in 2018. Please note that revisions to statistical data is common especially when it concerns financial metrics for corporate entities. CIAC's statistical releases reflect data available at the time of publication.

**Note: All data in this report are based on Statistics Canada sources and are accurate at the time of publication.**

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