Market evolution: Inorganic chemicals (CN 28) — 2015–2025

Introduction

This report examines the European Union's extra-EU trade in inorganic chemicals (CN 28) over the period 2015 to 2025. The analysis draws on yearly trade data, covering the entire bundle of codes under heading 28, from bulk intermediates such as ammonia and carbonates to specialised products like rare-earth compounds and radio-isotopes. The data reveal a decade in which total trade values expanded markedly, yet the expansion was almost entirely driven by a broad-based surge in unit prices rather than by volume growth. The trade deficit narrowed, partner patterns were reshaped by geopolitical events, and internal EU specialisation remained highly concentrated in a small set of Member States.

A powerful price surge lifts trade values while volumes remain stagnant

The headline figures for extra-EU trade in CN 28 show strong value growth between 2015 and 2025. According to the General Overview, exports rose from €11.0 billion to €18.2 billion (+65.9%) and imports from €13.4 billion to €19.4 billion (+44.7%). Yet this expansion was not accompanied by a commensurate increase in quantities: export volumes actually fell by 7.2% (from 15.9 million tonnes to 14.8 million tonnes) while import volumes inched up only 2.5% (from 15.1 million tonnes to 15.5 million tonnes). The entire value increase is therefore attributable to unit prices, which on the export side climbed from €688 per tonne to €1 230 per tonne (+78.7%) and on the import side from €885 per tonne to €1 249 per tonne (+41.1%).

The most intense price episode occurred in 2022, when import prices peaked at €1 617 per tonne (the highest in the series) and export prices reached €1 298 per tonne. Multiple price-shock events were detected in that year, affecting both imports and exports. The table below, derived from the Shocks section, summarises the three most extreme price shocks on the import side.

Partner	Shock centre	Price shift (%)	Value share (%)	Abnormality
United States	2021	+54.6	17.1	22.7
Norway	2022	+86.3	7.6	20.3
Russian Federation	2022	+126.1	15.6	6.0

On the export side, a notable price shock hit Bosnia and Herzegovina in 2022 (price +129.5%, abnormality 55.0), though the partner accounts for only 0.6% of EU exports. Other export price shocks affected Brazil, Norway, Iceland and Argentina. These disruptions are reflected in the Product Segment Breakdown: for instance, the import price of ammonia (CN 2814) more than doubled from €455 per tonne in 2021 to €1 098 per tonne in 2022, and export prices of carbonates (CN 2836) surged from €288 to €509 per tonne. The price surge thus left a deep imprint on the entire chapter, but underlying physical trade volumes remained surprisingly flat.

Partner geography reshaped by rivalry, resilience and re-routing

The composition of the EU's main non-EU suppliers and customers changed substantially over the decade. The Top Partners data show a clear pivot in imports.

Import partner	2015 (€ million)	2025 (€ million)	Change (%)
China	1 195	2 366	+98.0
United States	1 581	2 072	+31.0
United Kingdom	1 361	1 687	+24.0
Türkiye	375	971	+158.8
Norway	676	689	+1.9
Algeria	439	473	+7.7
Russian Federation	2 063	1 032	–50.0

Russian supplies halved in value, reflecting sanctions and self-imposed decoupling. China filled part of the gap, nearly doubling its sales to the EU, while Türkiye expanded even faster and the US and UK posted solid growth. As a result, the Concentration index for extra-EU imports fell from 750 to 588 (–21.6%), indicating a more diversified sourcing base by 2025.

On the export side, the picture is the reverse. The United States dominated as the premier destination, with EU sales soaring from €1.8 billion to €4.0 billion (+128.1%). The United Kingdom, despite Brexit, remained the second-largest market (€1.5 billion to €2.6 billion, +71.9%). Key export partners are shown below.

Export partner	2015 (€ million)	2025 (€ million)	Change (%)
United States	1 771	4 041	+128.1
United Kingdom	1 487	2 556	+71.9
Türkiye	362	617	+70.2
Norway	385	542	+40.9
Morocco	84	166	+98.1
Brazil	265	314	+18.6

This strong orientation towards a handful of large markets – in particular the US – drove the export Herfindahl-Hirschman Index up from 759 to 994 (+31.0%), indicating a marked increase in destination concentration. The EU's export success therefore became more dependent on the health of a few strategic relationships, exactly as its import sources were becoming more widely spread.

Internal specialisation: a few northern Member States dominate EU exports

Within the EU, the production and export of inorganic chemicals are highly concentrated in a handful of Member States. The Specialisation data for 2025 reveal the five most specialised reporters by revealed symmetric comparative advantage (RSCA).

Member State	RSCA	RCA	Share of EU28 exports (%)
Greece	0.225	1.58	1.1
Netherlands	0.206	1.52	22.1
Belgium	0.165	1.40	11.8
Germany	0.124	1.28	27.1
France	0.088	1.19	9.3

Germany, the Netherlands and Belgium together accounted for 61% of the EU's extra-EU exports of inorganic chemicals. Germany alone delivered more than a quarter of all exports. Greece, though a smaller absolute player, was the most specialised relative to its total export basket. On the other end of the spectrum, Cyprus, Malta and Luxembourg posted RSCA values below –0.9, showing virtually no competitive advantage in this chapter.

The same large Member States also dominate imports, but with a different dynamic. The Netherlands was the leading importer (€3.7 billion in 2025, +77% since 2015), partly reflecting its role as a logistics and re-export hub. Poland recorded a striking increase in imports, from €0.5 billion to €1.7 billion (+243%), indicative of expanding downstream industrial capacity. Belgium, in contrast, saw its imports decline by 20% over the period.

This dual picture – growing concentration of export capabilities in a few northern economies and an uneven import landscape – highlights the persistent asymmetry of the EU's inorganic chemicals sector.

Conclusion

EU trade in inorganic chemicals between 2015 and 2025 was shaped by a powerful price cycle that lifted values even as physical quantities stagnated or declined. The 2022 price shock, triggered by post-pandemic demand, energy cost pressures and geopolitical disruption, stands out as the defining event of the period. In parallel, the EU diversified its import sources away from Russian supplies towards China, Türkiye and the US, while its own exports became increasingly reliant on the US and UK markets. Within the Union, the export base remains concentrated in Germany, the Netherlands, Belgium and France, with little sign of decentralisation. The narrowing of the trade deficit was welcome, but the structural dependence on a small number of partners – both external and internal – leaves the sector exposed to future price swings and geopolitical shocks.

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