Market Study: Stabilizers





This brochure provides further information on the study "Stabilizers – World (7th edition)"

Executive Summary

How toxic is tin? This question could lead to a trade conflict between the USA and Europe. In North America, cables, pipes, and window frames are usually made durable with the help of tin. In the EU, on the other hand, the Chemicals Agency wants to restrict organotin stabilizers. Europeans tend to use calcium and zinc to protect plastic and rubber products against heat, oxidation, and UV light. The production and processing of PVC in particular would not be possible without stabilizing chemicals. The latest Ceresana study on the market for thermal stabilizers and UV stabilizers predicts that sales of these necessary additives will grow to USD 6.5 billion by 2033.

Protecting plastics with heavy metals or soybean oil

These days, cadmium stabilizers are frowned upon worldwide. In more and more countries, the plastics industry is also avoiding leadbased stabilizers. However, recycling remains a challenge: In the circular economy, plastics should be recycled wherever possible, including, for example, old floor coverings or other construction products made of PVC - however, the heavy metals used to stabilize the original materials can be found in the recycled materials. For new plastic products, environmentally friendly stabilizers that cause hardly any odor or VOC emissions are in demand. Ceresana expects global demand for calciumbased stabilizers to grow by 3.7% per year. Calcium can also be used for liquid mixed metal stabilizers. The demand for tin stabilizers is expected to amount to 258,000 tonnes in 2033. Bio-based heat stabilizers, such as those made from epoxidized soybean oil, are not yet suitable for all applications.

Stabilizers for PVC construction products

Almost two thirds of all plastic and elastomer stabilizers are used by the construction industry, primarily for products made of PVC. The most important application is plastic pipes, for which around 388,000 tonnes of stabilizers are currently used every year. This is followed by profiles, cables, and films. In total, Asia-Pacific is the largest regional market, accounting for a share of 61%, followed by Western Europe. In Asia, stabilizers are mainly used for PVC pipes, whereas in Europe they are used for profiles, for example for windows or door frames. For drinking water pipes at least, the aim worldwide today is to do without lead stabilizers.

7th edition of the "Stabilizers" market study:

Chapter 1 analyzes the global market – including forecasts up to 2033: For each region, **demand** in tonnes and **revenues** in US dollars and euros are given. Furthermore, regional demand per product type and application area is analyzed. Market data on demand and revenues per sector are also provided.

The following **stabilizer types** are examined in detail: Calcium, tin, lead, and liquid mixed metal stabilizers and other products

Application areas for stabilizers analyzed in this study are: Pipes, profiles, films, cables, floorings, and others.

Customer sectors for stabilizers are: Construction industry, packaging, transportation, E&E, Industry, and others.

In **Chapter 2**, the demand for and the revenues generated with stabilizers are analyzed for **22 countries**. Demand is examined in detail for each type of stabilizer and for the various application areas and sectors.

Chapter 3 provides **67 company profiles** of the most important producers, for example Akdeniz, BASF, Baerlocher, Evonik, Lanxess, Mitsubishi Chemical, Timah, Shin-Etsu, Syensqo, Songwon, and Sumitomo.



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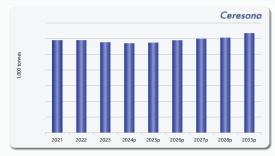
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2.1.3 Germany

Demand for stabilizers in Germany amounted to X tonnes in 2023. We expect market volume to increase by, on average, X% p.a. and to amount to approx. X tonnes in 2033. Revenues generated with stabilizers amounted to EUR X million in 2023. We predict an average increase of X% p.a. up until 2033.



Graph: Demand in Germany from 2021 to 2033

Revenues	2021	2022	2023	2024p	2025p	2026p	2027p	2028p	2033p	2023- 2033
million USD	х	х	х	х	х	х	х	х	х	X% p.a.
million EUR	х	х	х	х	х	х	х	х	х	X% p.a.
Table: Revenues o	generate	d in Ge	ermany	/ from	2021 to	o 2033,	in mill	on USI) and r	nillior
EUR										

million USD	2021	2022	2023	2024p	2025p	2026p	2027p	2028p	2033p	2023 2033
Packaging	х	х	х	х	х	х	х	х	х	X%
										p.a.
Construction	х	х	х	х	х	х	х	х	х	X%
										p.a.
Transportation	х	х	х	х	х	х	х	х	x	X%
										p.a.
E&E	х	х	х	х	х	x	х	х	х	X%
										p.a.
Industry	х	х	х	х	х	х	х	х	x	X%
industry										p.a.
Others	x	х	х	x	х	x	x	x	x	X%
Others	^	~	~	^	~	^	^	~	×	p.a.
Total	x	х	x	×	x	x	x	x	x	X%
Total	^	^	^	×	~	^	^	~	~	p.a.

in 1,000 tonnes	2021	2022	2023	2024p	2025p	2026p	2027p	2028p	2033p	2023- 2033
Pipes	х	х	х	х	х	х	х	х	х	X% p.a.
Profiles	х	х	х	x	х	x	х	x	х	X% p.a.
Films	х	х	х	х	x	×	x	х	х	X% p.a.
Cables	х	х	х	x	x	x	x	x	x	X% p.a.
Floorings	х	х	х	x	х	×	х	x	x	Х% р.а.
Others	х	х	х	x	x	x	x	x	x	X% p.a.
Total	х	х	х	x	x	x	x	x	х	X% p.a.

able: Demand in Germany from 2021 to 2033 – split by applicatio

in 1,000 tonnes	2021	2022	2023	2024p	2025p	2026p	2027p	2028p	2033p	2023 2033
Tin	х	х	х	х	х	х	х	х	х	X% p.a.
Lead	х	х	х	х	х	х	х	х	х	р.а. X% p.a.
Calcium-based	х	х	х	×	х	×	x	х	x	Х% р.а
Liquid mixed metal stabilizers & others	х	х	х	х	х	х	х	х	х	X% p.a
Total	x	x	х	×	x	×	x	x	x	X%

Market Study: "Stabilizers – World (7th edition)" 22 Countries, 67 Producers, 380 Pages, 64 Graphs, 199 Tables; 04/2024

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(For each country: Total revenues, total demand, revenues and demand split by sector, demand split by application and by product)

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2.5.8 Vietnam
2.5.9 Others

in 1,000 tonnes	2021	2022	2023	2024p	2025p	2026p	2027p	2028p	2033p	2023- 2033
Packaging	х	х	х	x	x	х	х	x	х	X% p.a.
Construction	х	х	х	x	x	х	x	x	х	X% p.a.
Transportation	х	х	х	x	x	х	х	x	х	X% p.a.
E&E	х	х	х	х	х	х	×	х	х	X% p.a.
Industry	х	х	х	x	x	х	х	x	х	X% p.a.
Others	х	х	х	х	х	х	×	х	х	X% p.a.
Total	×	×	x	x	x	x	x	x	х	X% p.a.

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The major share of total demand for stabilizers in 2023 was accounted for by the application area "profiles". Within the next ten years, we expect demand in the segment "pipes" to develop most dynamically at rates of 1.2% per year.

In 2020, around 360,000 companies in the construction industry in Germany with 2.6 million employees (6% of the workforce) generated sales of around EUR 360 billion. In 2021, the construction industry's share of total economic gross value added reached 6% (nominal), or 4.2% (price-adjusted). Of the EUR 475 billion construction investments in 2022, 61.6% were in residential construction, 19.9% in commercial construction and 4% in public construction; public civil engineering had a share of 7.9%, commercial civil engineering 6.6%. Public construction investments, i.e. by the federal government, federal states, and municipalities, amounted to EUR 58.1 billion (a decrease of 2% in real terms compared to 2021 due to inflation). On average, public contracts account for almost 30% of turnover in the German construction industry.

When it took office at the end of 2021, the current federal government set up a new Federal Ministry of Housing, Urban Development and Building (BMWSB) with an initial budget of just under EUR 5 billion. The government announced that 400,000 new apartments are to be built in Germany each year, 100,000 of which are to be publicly subsidized. However, this target is not considered feasible until after 2024. German construction output decreased by 1.5% in 2022, following a decline of 1.6% in 2021.



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Belgium (2 producers) France (1) Germany (9) Italy (4) Spain (1) Switzerland (2) The Netherlands (1)

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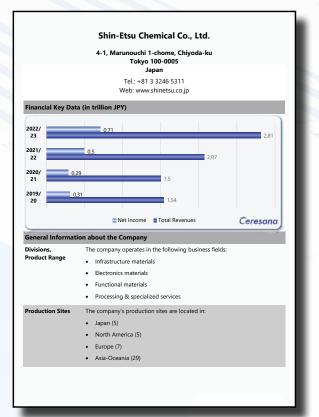
3.4 South America Brazil (1) Colombia (1)

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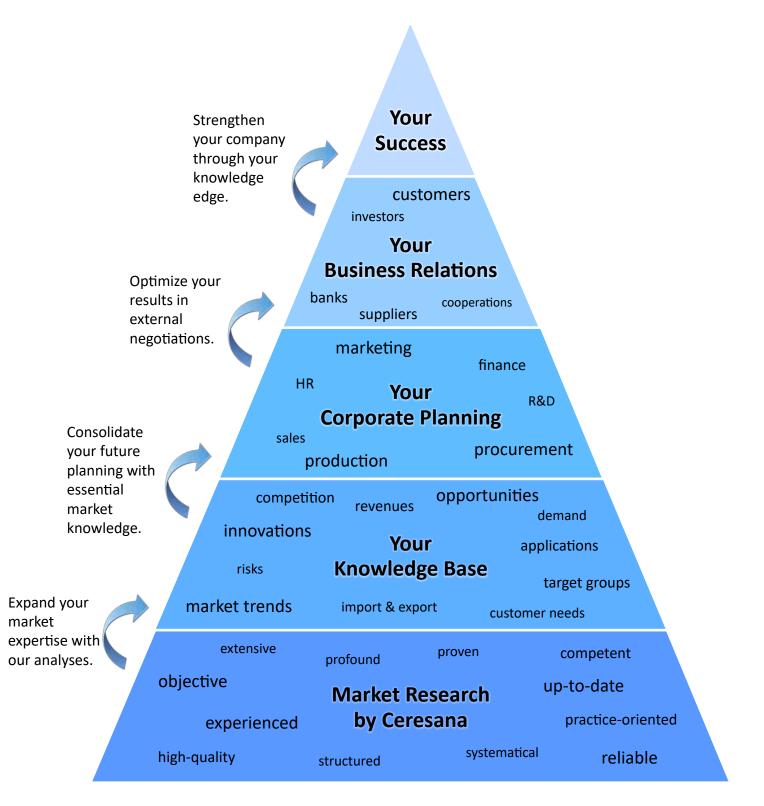
Profile Summary	Shin-Etsu Chemical Co., Ltd. engages in the manufacture and sale of chemicals, electronics materials, and functional materials. The company was established in 1926. Formerly known as Shin-Etsu Nitrogen Fertilizer Co., Ltd., the company changed its name to Shin-Etsu Chemical Co., Ltd. in 1940. The corporation has been listed on the Tokyo Stock Exchange since 1949. The company's fiscal year ends in March. The company employed 25,717 people in 2022/23 and held total assets amounting to JPY 4.73 trillion. Split by business segments, 47% of revenues in 2022/23 were generated with infrastructure materials, 31% with electronic materials, 17% with functional materials, and 5% with processing and specialized services. Split by geographical regions, 19% of revenues in 2022/23 were generated in Japan, 35% in the United States, 29% in Asia-Oceania, 10% in Europe, and 7% in other regions. In addition to its production plants, the company operates 6 research centers. Most of Shin-Etsu's sites are certified according to ISO 9001 and ISO 14001.
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Specific Informatio	
	ffers various grades of Metolose, a nonionic water-soluble cellulose ether se. An aqueous solution of Metolose can function as emulsion stabilizer and
	further function as suspension stabilizer for polymerization. Additionally, the
	tabilizer (MMB-403 and KEP-12) used in silicone products.

*Note: The profiles are assigned to the country in which the company or holding is headquartered. Profiles also include JVs and subsidiaries.

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Fillers – World

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Chelating Agents – World

Flame Retardants – World

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Biobased Insulation Material – World

Biobased Paints and Coatings – World



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