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Elemental Fluorine Market Research Report - Global Forecast till 2030

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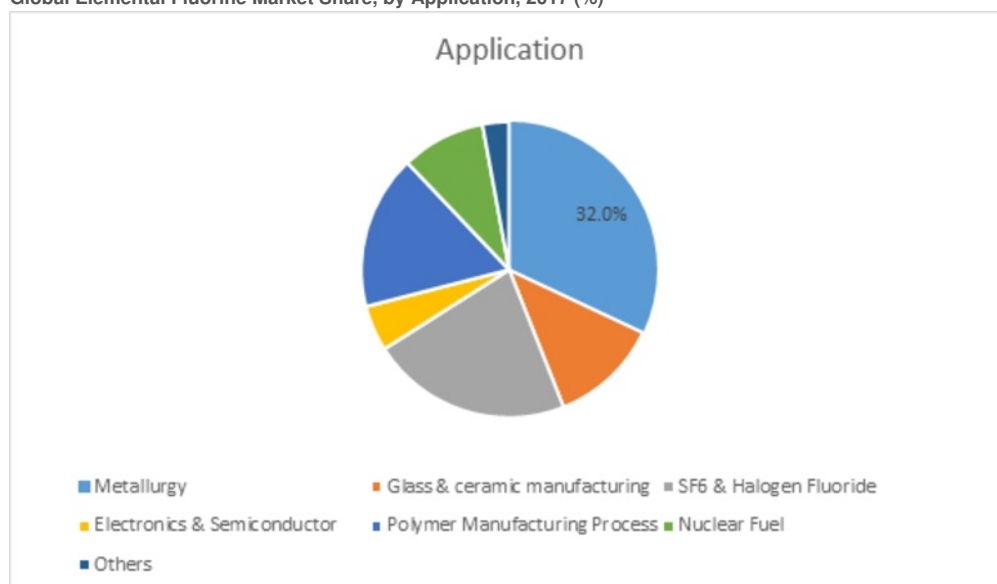
Market Overview

The global elemental fluorine market is expected to register a CAGR of ~9.5% and cross ~USD 540 million by 2023

Elemental fluorine gas is extremely toxic, corrosive, pale yellow, which can react with organic & inorganic substances. On the industrial scale, elemental fluorine is produced by the process of electrolysis of potassium fluoride and hydrogen fluoride mixture. The key application of elemental fluorine is in making fluorides, notably sulfur hexafluoride, uranium hexafluoride, and halogen fluorides. Technological advancements in the manufacturing process of elemental fluorine in a couple of decades have led to ample availability of purge gas, thereby boosting its applications in end-user industries.

The elemental fluorine market is mainly driven by various end-use application such as electronics & semiconductors, metallurgy, ceramic manufacturing, polymer manufacturing, and glass. Elemental fluorine is widely used in the manufacturing of uranium hexafluoride, the element which is used in the manufacturing of nuclear reactors as a fuel through the uranium enrichment process. Elemental fluorine is a form of uranium which can be enriched for the next phase of a nuclear fuel manufacturing process. With an increase in demand from the last couple of years for fuel manufacturing, conversion plant rate is running over 75% capacity and is expected to reach 85% during the forecast period. The extensive application of elemental fluorine for production of polyvinylidene fluoride (PVDF) and polytetrafluoroethylene (PTFE) is a driving factor for the market growth in the coming future. Increasing use of fluorinated organic chemicals such as in electrolytes and solvents in lubricants and pesticides is expected to accelerate the market growth in the coming years. Additionally, a key application of elemental fluorine in organic synthesis reactions, nitrogen derivatives, and agents is expected to propel the market growth with significant CAGR during the forecast period. However, there are some factors which can hamper the market growth such as handling, storage of elemental fluorine and transportation. Furthermore, increasing on-site elemental fluorine gas production and rising end use application is expected to create new opportunities for the manufacturers during the forecast period.

Global Elemental Fluorine Market Share, by Application, 2017 (%)



Source: MRFR Analysis

Regional Analysis

Asia-Pacific is estimated to be the most lucrative market for the elemental fluorine in 2018 and is expected to continue the dominance during the assessment period. The demand for elemental fluorine is soon expected to increase owing to the growing demand from developing countries such as China, India, South Korea, and Japan. Furthermore, the increase in demand for end-use industries and positively inclined growth of industrialization are some of the key driving factors to accelerate the market growth during the forecast period. However, consumption of elemental fluorine in Latin America and the Middle East & Africa is estimated to be low owing to the weak growth of end-use industries such as chemical, nuclear fuel, electronics, and semiconductor. Additionally, Western Europe and North America are expected to hold more than one-third of market value share during the review period.

Segmentation

The global elemental fluorine market has been segmented by form, application, and region. Based on form, the global elemental fluorine market has been divided into α -Fluorine and β -fluorine. By application, the global elemental fluorine market has been categorized into metallurgy; glass & ceramics manufacturing; electronics & semiconductor; polymer manufacturing & processing; nuclear fuel and others.

The global elemental fluorine market, by region, has been studied concerning five regions—North America, Europe, Asia-Pacific, Latin America, and the Middle East & Africa.

Key Players

Some of the key players operating in the global elemental fluorine market are Pelchem SOC Ltd (South Africa), Kanto Denka Kogyo Co., Ltd (Japan), The Linde Group (Ireland), Solvay S.A (Belgium), Navin Fluorine International Ltd (India), Air Products & Chemicals, Inc (US), and Advance Research Chemical Inc (US), among others.

Intended Audience

- Elemental Fluorine Manufacturers
- Traders and Distributors of Elemental Fluorine
- Research and Development Institutes
- Potential Investors
- Raw Material Suppliers
- Nationalized Laboratories

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