

# **Aircraft De-Icing Fluids Market by Aircraft Type (Commercial Aircraft, Military Aircraft, General Aviation, and UAV), by Fluid Type (Type I, Type II, Type III, and Type IV), by Material Type (Propylene Glycol and Ethylene Glycol), and by Region (North America, Europe, Asia-Pacific, and Rest of the World), Trend, Forecast, Competitive Analysis, and Growth Opportunity: 2018-2023**

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## **Abstracts**

This report, from Stratview Research, studies the aircraft de-icing fluids market over the trend period of 2012 to 2017 and forecast period of 2018 to 2023. The report provides detailed insights into the market dynamics to enable informed business decision making and growth strategy formulation based on the opportunities present in the market.

### **Aircraft De-Icing Fluids Market: Highlights**

Aircraft de-icing fluids play an important role in providing safe, uninterrupted, and timely air travel during the inclement weather conditions. These are typically ethylene glycol and propylene glycol based fluids, which also contain water, corrosion inhibitors, wetting agents, and dye. These fluids are formulated to assist in removing ice, snow, and frost layers from external surfaces of an aircraft and reduce the freezing point of water. De-icing fluids (Type I) remove ice, snow, and frost layers from external surfaces of an aircraft and anti-icing fluids (Type II, Type III and Type IV) prevent the aircraft from further freezing ice on its critical surfaces for a certain period of time. In the recent past, there have been some aircraft accidents that have created a fear among the airlines for snow deposition on aircraft surfaces when an aircraft is in the air. Different types of fluids are used for de/anti-icing of different aircraft, depending on its rotational speed

and recommendation by the aircraft manufacturer.

The global aircraft de-icing fluids market is projected to grow at a healthy rate over the next five years to reach US\$ 848.1 million in 2023. Rising air passenger and cargo traffic, construction of new airports & expansion of existing airports, rising accidents & problem associated with snow deposition on aircraft, expanding global tourism sector especially in colder regions, and increasing demand for eco-friendly and recyclable de-icing materials are the major growth factors that are burgeoning the demand for aircraft de-icing fluids. North America and Europe are the biggest demand generators for de-icing fluids with a combined share of more than two-thirds of the total market.

Based on the aircraft type, the market is bifurcated into Commercial Aircraft, Military Aircraft, General Aviation, and UAV. Commercial aircraft is likely to remain the most dominant segment of the market over the next five years. It is also likely to be the fastest-growing segment over the forecast period, mainly driven by rising passenger traffic and increasing fleet of commercial aircraft in colder regions, such as North America and Europe. In the winter season, thousands of the flights get canceled or delayed worldwide due to low temperature and icy weather conditions. It acts as a major bottleneck for airlines in providing better service to its customers along with an adverse impact on their profitability/margin.

Based on the fluid type, the market is segmented into Type I, Type II, Type III, and Type IV. Type I is likely to remain the most dominant and fastest-growing segment of the market during the forecast period. It is consumed in large quantities for de-icing of an aircraft because they are used for removing the ice and frost layers from external surface of the aircraft and their capability to provide limited anti-icing protection. Type III fluid holds the smallest share of the market, due to its limited use in most of the countries.

Based on the material type, the market is segmented into Propylene Glycol and Ethylene Glycol-based De-Icing Fluids. Propylene glycol-based de-icing fluid is projected to maintain its dominance in the market over the next five years. It is also likely to grow at the highest rate during the forecast period as well. Propylene glycol-based de-icing fluids are replacing ethylene glycol-based de-icing fluids, owing to their less toxic nature. Although ethylene glycol is a better heat transfer fluid than propylene glycol, it can adversely affect the environment due to its inappropriate disposal on runways at airports. It may enter waterways and may affect the flora and fauna in the surrounding environment. Most of the airports worldwide prefer to use propylene glycol-based de-icing fluids and avoids the usage of ethylene glycol. Ethylene glycol based de-

icing fluid still found commercial applications in countries, such as Canada and Russia.

Based on regions, North America is projected to remain the largest market for aircraft de-icing fluids during the forecast period primarily driven by the USA, as it is the growth engine of the region's market and has one of the largest fleets of aircraft across the world. Growing aircraft fleet size and rising passenger traffic are likely to further boost the overall demand for aircraft de-icing fluids in the region's market in the foreseeable future. It is also projected to witness the highest growth during the forecast period as well.

The supply chain of this market comprises raw material suppliers, de-icing fluid manufacturers, distributors, aircraft manufacturers, and airport authorities. Key aircraft de-icing fluid manufacturers are Clariant AG, The Dow Chemical Company, Kilfrost Group Plc, Cryotech Deicing Technology, LNT Solutions, Inland Technologies, Abax Industries SAS, and Provion Functional Chemicals NV. Development of non-toxic and recyclable aircraft de-icing fluids and collaboration with customers are some of the most common strategies adopted by the major players in order to remain competitive in the market.

### Research Methodology

This report offers high-quality insights and is the outcome of detailed research methodology comprising extensive secondary research, rigorous primary interviews with industry stakeholders and validation and triangulation with Stratview Research's internal database and statistical tools. More than 700 authenticated secondary sources, such as company annual reports, fact book, press release, journals, investor presentation, white papers, patents, and articles have been leveraged to gather the data. We conducted more than 10 detailed primary interviews with the market players across the value chain in all four regions and industry experts to obtain both qualitative and quantitative insights.

### Report Features

This report provides market intelligence in the most comprehensive way. The report structure has been kept such that it offers maximum business value. It provides critical insights into the market dynamics and will enable strategic decision making for the existing market players as well as those willing to enter the market. The following are the key features of the report:

Market structure: Overview, industry life cycle analysis, supply chain analysis

Market environment analysis: Growth drivers and constraints, Porter's five forces

analysis, SWOT analysis

Market trend and forecast analysis

Market segment trend and forecast

Competitive landscape and dynamics: Market share, Product portfolio, New product launches, etc.

Attractive market segments and associated growth opportunities

Emerging trends

Strategic growth opportunities for the existing and new players

Key success factors

The global aircraft de-icing fluids market is segmented into the following categories:

Aircraft De-Icing Fluids Market, By Aircraft Type

Commercial (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Military (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

General Aviation (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

UAV (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Aircraft De-Icing Fluids Market, By Fluid Type

Type I (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Type II (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Type III (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Type IV (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Aircraft De-Icing Fluids Market, By Material Type

Ethylene Glycol (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Propylene Glycol (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Aircraft De-Icing Fluids Market, By Region

North America (Country Analysis: The USA, Canada, and Mexico)

Europe (Country Analysis: Russia, the UK, Germany, Sweden and Rest of Europe)

Asia-Pacific (Country Analysis: China, Japan, South Korea, and Rest of Asia-Pacific)

Rest of the World (Sub-Region Analysis: The Middle East, and Others)

Report Customization Options

With this detailed report, Stratview Research offers one of the following free customization options to our respectable clients:

Company Profiling

Detailed profiling of additional market players (up to 3 players)

SWOT analysis of key players (up to 3 players)

Market Segmentation

Current market segmentation of any one of the fluid by material type

Competitive Benchmarking

Benchmarking of key players on the following parameters: Product portfolio, geographical reach, regional presence, and strategic alliances

Custom Research: Stratview Research offers custom research services across sectors.

In case of any custom research requirement related to market assessment, competitive benchmarking, sourcing and procurement, target screening, and others, please send your inquiry at [sales@stratviewresearch.com](mailto:sales@stratviewresearch.com)

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- 9.5. Kilfrost Group Plc
- 9.6. LNT Solutions Limited
- 9.7. Provion Functional Chemicals NV
- 9.8. The Dow Chemical Company

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