

Aqueous-based Metal Cleaners Market by Cleaning Chemicals (Builders, Sequestrants & Inhibitors, Surfactants), End-use Industries (Manufacturing, Automotive & Aerospace, Healthcare), Chemistry Type, Technology and Region- Global Forecast to 2027

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Report description:

The global aqueous-based metal cleaners market will grow to USD 14.6 billion by 2027, at a CAGR of 5.4% from USD 11.2 billion in 2022. Automotive and manufacturing are the key end-use industries of aqueous metal cleaners. The use of aqueous metal cleaners in manufacturing body parts is essential. Metal body parts of vehicles are cleaned by aqueous metal cleaners. There is increased production of vehicles globally. This leads to an increase in the usage of aqueous metal cleaners in the industry.

"Dip is projected to be the second fastest-growing technology of aqueous-based metal cleaners market during the forecast period."

Dip or immersion technology is a lower-cost parts cleaning method, but it operates at higher chemical concentration levels and high temperatures for effective cleaning. In this technology, small or large parts are immersed in the tank of cleaning solution at a high temperature. Dip technology is an effective way to remove contaminants in industrial manufacturing, which often produce large amounts of dirt. This technology is majorly used for objects including vehicles, machinery, pharmaceutical, and industrial that are difficult to clean using other methods.

"Acidic is estimated to be the second largest chemistry type in aqueous-based metal cleaners market, in terms of value, in 2021" After alkaline cleaners, acidic cleaners are the second-most widely used cleaners globally. Acidic cleaners are water-based mixtures with a pH level of less than 7. They are majorly used to remove scale, rust, and oxides from metals. Surface treatments, including phosphating and brightening, use acidic chemistry types of aqueous solutions. Use of eye protection equipment and

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gloves is required for protection from the fumes while using acidic cleaners.

"Sequestrants and inhibitors are projected to be the second fastest-growing cleaning chemical of aqueous-based metal cleaners market during the forecast period."

Sequestrants are water conditioners that are used to prevent the precipitation and deposit of metal ions in alkaline media. They help to remove oxide layers without attacking the base metal and to control water hardness. Their function is to form soluble complexes, either with calcium and magnesium or with metals from dissolved oxides. Examples of such sequestrants are tripolyphosphates, organic phosphates, and polycarbonic acid salts such as sodium gluconates. Inhibitors are used in aqueous-based metal cleaning solutions. Corrosion of metal parts during cleaning is of lesser importance with alkaline cleaners and ferrous metals. In alkaline solutions, iron and steel are relatively stable. The case is different for acid systems or for non-ferrous metals. Depending on the builder system, the pH value, and the workpiece metal, various substances can be used.

"Automotive & aerospace is estimated to be the second largest end-use industry in aqueous-based metal cleaners market, in terms of value, in 2021"

Aircraft require regular cleaning to prevent them from early wear and tear and to increase the product life. The automotive sector requires cleaning and polishing during the manufacturing and assembly stages. In this industry, regular tire cleaning, body cleaning, and window cleaning are also required. In the automotive industry, aqueous-based metal cleaners are used to clean oil, rear-end gear grease, and heavy brake dust from brake parts. Automated spray washers that work in conjunction with aqueous cleaners are helped to clean auto parts, thereby eliminating the need for manual scrubbing and brushing.

"North America is estimated to be the second-largest aqueous-based metal cleaners market, in terms of value, in 2021"

North America comprises developed economies, and the region has strong manufacturing, automotive, aerospace & defense industries. This region is technologically advanced, with various innovations in the hardware and software sectors. North America has flourished owing to the growth of economies such as the US, Canada, and Mexico. These countries are strongly integrated through the North American Free Trade Agreement (NAFTA), owing to which trade between these countries has increased significantly during the past 20 years and has accelerated the economic growth of the US, Canada, and Mexico. The US and Canada are interconnected through OEMs and automotive parts businesses manufacturing and assembling automobiles.

Breakdown of primaries

The study contains insights from various industry experts, ranging from raw material suppliers to Tier 1 companies. The break-up of the primaries is as follows:

-□By Company Type: Tier 1 - 46%, Tier 2 - 31%, and Tier 3 - 23%

-□By Designation: C-Level - 46%, Director Level - 27%, and Others - 27%

-□By Region: North America - 33%, Europe - 27%, APAC - 27%, South America - 7%, Middle East & Africa - 6%,

The key market players profiled in the report include BASF SE (Germany), Dow Inc. (US), Stepan Company (US), Evonik Industries AG (Germany), Eastman Chemical Company (US), Nouryon (Netherlands), Clariant AG (Switzerland), The Chemours Company (US), Indorama Ventures Public Company Limited (Thailand), Ashland Global Holdings Inc. (US).

Research Coverage

This report segments the market for aqueous-based metal cleaners is based on technology, chemistry type, cleaning chemicals, end-use industry and region, and provides estimations for the overall market size across various regions. A detailed analysis of key industry players has been conducted to provide insights into their business overviews, products & services, key strategies, associated with the market for aqueous-based metal cleaners.

Reasons to Buy this Report

This research report is focused on various levels of analysis - industry analysis (industry trends), market share analysis of top players, and company profiles, which together provide an overall view on the competitive landscape; emerging and high-growth segments of the aqueous-based metal cleaners market; high-growth regions; and market drivers, restraints, and opportunities. The report provides insights on the following pointers:

-□Market Penetration: Comprehensive information on aqueous-based metal cleaners offered by top players in the global market

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- Market Development: Comprehensive information about lucrative emerging markets - the report analyzes the markets for aqueous-based metal cleaners across regions
- Market Diversification: Exhaustive information about new products, untapped regions, and recent developments in the global aqueous-based metal cleaners market
- Competitive Assessment: In-depth assessment of market shares, strategies, products, and manufacturing capabilities of leading players in the aqueous-based metal cleaners market

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