# Sur Tec

### **Protection** upgraded



## **SURTEC COMPANY PROFILE**

March 2024



### **CONTENT**

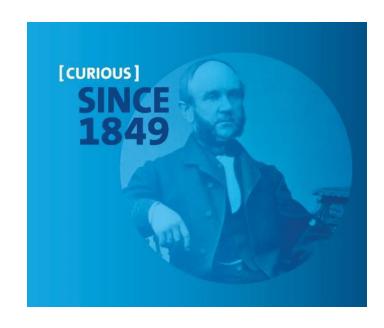


1	Freudenberg Group
2	Freudenberg Chemical Specialities
3	Brands: Klüber Lubrication, Chem-Trend, OKS, Capol
4	SurTec

### Overview



- Freudenberg is a family-owned group of companies operating worldwide. With its
   11 Business Groups, it is active in various industries and markets.
- Creativity, quality, diversity and innovative strength are the cornerstones of the company. Reliability and responsible action are among the core values of the company's more than 175-year history.
- Freudenberg relies on partnerships with customers, long-term orientation as well as financial solidity and the excellence of its approximately 52,000 employees in around 60 countries around the world.
- The accident rate or LDIFR (Lost Day Incident Frequency Rate) is 1.4 per million hours worked, making Freudenberg the leader in the industry.



Key Facts 2023



\$	









_	Turnover	€ 11.9 billion
_	Operating Result	€ 1.08 billion
	Investment in R&D	€ 603.6 million
	Share of investments in environmental protection, occupational health and safety, and sustainability	10%
	Workforce	52,241



### Organisational Structure 2023



### Freudenberg SE

Seals & Vibration Control Technology



- Sales\*: € 6.3 billion
- Staff: 29,748

Technical Textiles and Filtration



- Sales\*: € 2.59 billion
- Staff: 11,026

Cleaning Technologies and Products



- Sales\*: € 1.24 billion
- Staff: 3,682

**Specialities** 



- Sales\*: € 2.02 billion
- Staff: 7,785



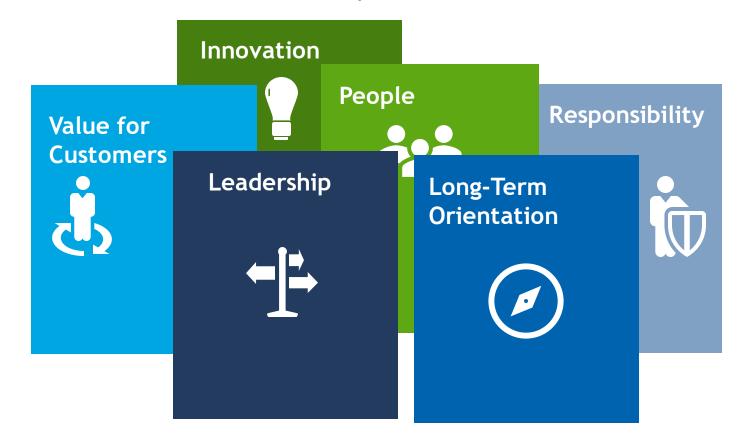
<sup>\*</sup> incl. Intercompany Sales

Company Culture: Guiding Principles



Freudenberg gears its business conduct towards six Guiding Principles.

They are a short version of the Group's Business Principles, summarised for our employees and business partners.



Company Culture: Code of Conduct





The Code defines what is expected in terms of business conduct and behavior from each employee, regardless of position, function and country. It serves as a guide in dealing with moral and legal issues correctly.



The Code expects lawful and responsible conduct from all employees from the outset.



All employees of the Freudenberg Group receive their own personal copy.



a brand of

FREUDENBERG

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### **CONTENT**



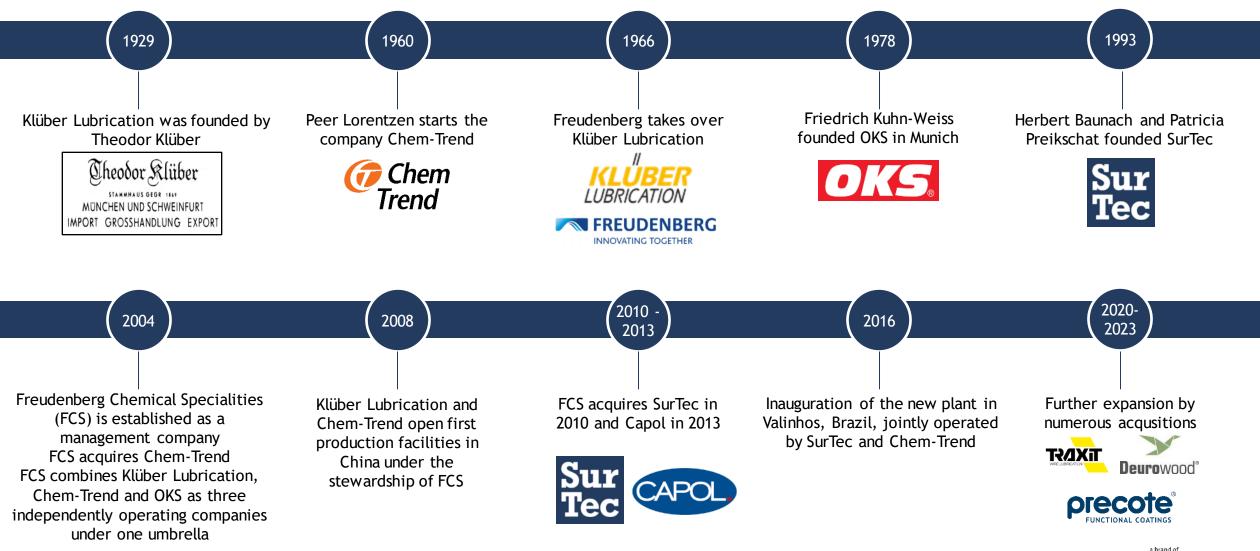
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### FREUDENBERG CHEMICAL SPECIALITIES (FCS)

### History





FREUDENBERG

### FREUDENBERG CHEMICAL SPECIALITIES

Organisational Structure



### Freudenberg Chemical Specialities:







Headquarters in Munich, Germany

90 locations in over 40 countries





Worldwide sales of € 1.42 bn in 2023

About 4,000 employees



### **CONTENT**



1	Freudenberg Group
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## Global Leader in Speciality Lubrication

Greases, Oils, Corrosion Protection, Waxes & Pastes



## Global Leader in Specialty Release Agents

Die Casting, Polyurethane, Thermoplastics, Tire, Rubber & Composite



## Partner for High-Performance Lubricants

Pastes, Oils, Greases, Dry Lubricants, Corrosion Protection & Maintenance



## Specialist for Glazing, Releasing or Sealing Confectionery

Chocolate-coated Centres, Sugar-coated Centres, Hard and Soft Caramels, Gums and Jellies, Coated Goods, Liquorice and Extruded Products & Pre-coating Centres

### **CONTENT**



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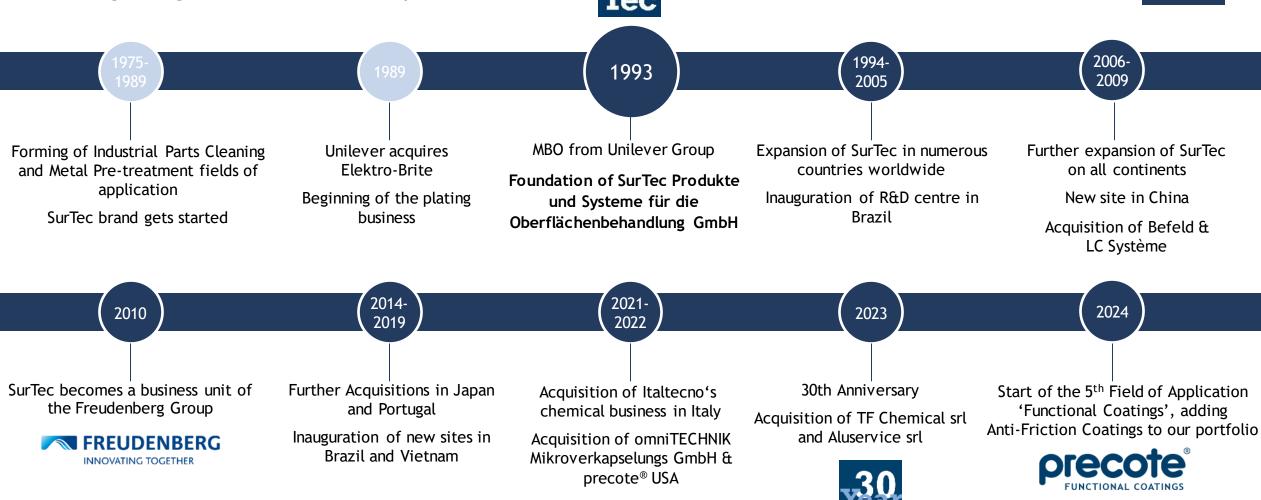


## **Experts for Surface Treatment**

Industrial Parts Cleaning, Metal Pre-treatment, Electroplating & Functional Coatings







TREUDENBERG

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### **VISION AND MISSION**



**VISION** 

To be the preferred supplier of chemical specialties for surface treatment. We are unique in delivering solutions for Industrial Parts Cleaning, Metal Pre-treatment, Electroplating, and Functional Coatings.

### MISSION

Our commitment is to develop and manufacture high quality chemical specialties and processes to meet our customers requirements. We sell directly on a worldwide basis and provide excellent technical consulting and services. Our products and processes ensure superior economy based on price/performance evaluations. We always strive to sustainably improve our own footprint as well as the handprint of our customers.

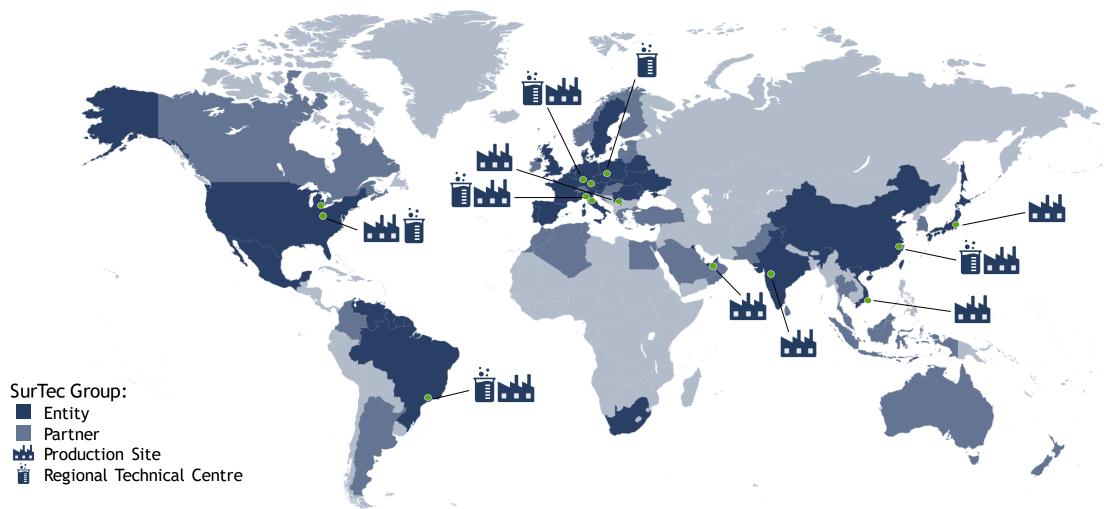


- SurTec is a leading player in chemicals for surface treatment processes
- Environmentally compatible products and processes
- Approx. 550 employees worldwide
- More than 1000 products and formulations

### TECHNICAL SERVICE AND PRODUCTION WORLDWIDE



Always close to the Customer



SurTec is represented in more than 40 countries with own subsidiaries and a global partner network.

### **WORLDWIDE PRESENCE**

#### Overview on Affiliates and Partners

## Sur Tec

### **AMERICAS**

- SurTec do Brasil, Brazil
- SurTec USA, USA
- precote® USA, LLC., USA
- Klüber Lubrication, Mexico

## **SurTec production locations**SurTec locations without production *SurTec Partner*

### **EMEA**

- SurTec Deutschland, Germany
- precote<sup>®</sup> Munich, Germany
- SurTec France, France
- SurTec Austria, Austria
- SurTec Scandinavia, Denmark
- SurTec Benelux, The Netherlands
- SurTec Polska, Poland
- SurTec Italia, Italy
- SurTec SK, Slovakia
- SurTec ČR, Czech Republic
- SurTec Čačak, Serbia
- SurTec Adria, Slovenia
- SurTec Romania, Romania
- ST Ibérica, Portugal
- SurTec South Africa, South Africa
- SurTec Middle East, UAE
- Surtec Suisse GmbH, Switzerland
- Coquinesa, Spain
- DEDE KIMYA, Turkey

### **ASIA**

- SurTec Hangzhou, China
- SurTec MMC Japan, Japan
- SurTec Chemicals, India
- SurTec Viet Nam, Vietnam
- POONGWON CO., LTD., South Korea
- Hankook Chem., South Korea
- Morimura Bros. (Asia) Co., Ltd., Japan
- YST Surface Technology, China
- Nature Trading Co., Ltd. (METEC), Taiwan
- PT. Cahaya Chandra Cemerlang, Indonesia
- MS Chem (SEA) SDN BHD, Malaysia
- Ya Thai Chemical Co. Ltd., Thailand
- Electrochemical Co. Ltd., Thailand
- Australian Chemicals & Coatings, Australia

### INTERNATIONAL TECHNICAL CENTRE COVERAGE

### Regional and Local Technical Centres in all three Regions





Regional Technical Centre

Brazil

**Local Technical Centre** 

USA



Regional Technical Centre

Germany, Poland, Italy

**Local Technical Centre** 

France, Portugal, Serbia

Field Lab

Czech Republic, Denmark, Netherlands, Slovakia, Slovenia, UAE, South Africa



Regional Technical Centre

China

**Local Technical Centre** 

Japan, India

Field Lab

**Vietnam** 

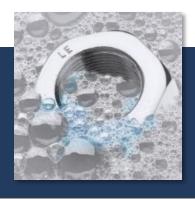


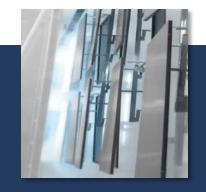
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### FIELDS OF APPLICATION

### SurTec offers a Complete Product Portfolio for Surface Treatment













#### **Industrial Parts Cleaning**

- Temporary Corrosion Protection
- 1K Built Cleaning Products
- Surfactant Blends
- Builder Systems

#### **Metal Pre-treatment**

- Tri-Chrome Passivations
- Chromate Replacements
- Phosphates & Phosphate Replacements
- Anodizing

## **Decorative Electroplating**

- Copper, Nickel and Chrome
- Plating on Plastics
- Chrome-free Etch Technology for POP
- Pre-treatment for all Base Materials

## Functional Electroplating

- Zinc and Zinc Alloys
- Tin and Tin Alloys
- Passivations and Sealers
- Wear Resistant Layers
- Pre-treatment

## Functional Coatings

- Locking
- Sealing
- Clamping
- Wear & Media Resistance
- Dry Lubrication

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### INDUSTRIAL PARTS CLEANING

### Water-based Cleaner Systems with Outstanding Performance



### **Applications**

- Dephosphating
- Deburring
- Interoperational cleaning
- Precision cleaning
- Cleaning in the production of aerosol cans
- Cleaning before & after heat treatment
- Cleaning before plasma coating
- Cleaning of PET flakes in the recycling process
- Cleaning during vibratory finishing

**More information** 

### **Technology Highlights**

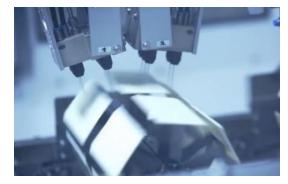
- Salt-free all-in-one cleaner for ferrous metals; optional: low temperature cleaners
   SurTec 042, SurTec 041 LT
- Universal surfactant blend with maximum cleaning ability at low temperatures
   SurTec 081
- P-free multi-metal neutral activator, which removes rust and oxide layers without risk of flash-rust formation at neutral pH-value

SurTec 413

P-, salt- and MEA-free recycable temporary corrosion protection
 SurTec 537



Cleaning before heat-treatment



Cleaning before plasma treatment



Cleaning equipment (Ecoclean)



#### METAL PRE-TREATMENT

### Focus on Replacement Technologies with Tangible Added Values



### **Applications**

- Cleaning, pickling, deoxidising
- Chromium(III) passivation of light metals
- Chrome-free pre-treatment of aluminium before painting
- Modular low-temperature zinc and manganese phosphating
- Phosphate substitute for multi-metal pre-treatment
- Functional and decorative anodizing processes
- Quenching and Passivation after hot-dip galvanizing
- Pickling & Passivation of Stainless Steel

**More information** 

### **Technology Highlights**

- Tri-Chrome passivation of aluminium
   SurTec 650 Family
- Phosphate-free low temperature high performance cleaner for multi-metal applications
   SurTec 168 LT
- Modular low-temperature phosphating SurTec 61x Family
- Chrome-free pre-treatment of aluminium before painting
   SurTec 643
- Functional and decorative anodizing processes
   SurTec 3xx (Hardwall, Sallox, Alubrill)



SurTec 617: Modular zinc phosphating



SurTec 650: E-Mobility



SurTec 345 Hardwall: Alkali-resistant sealing

sealing

a brand of

FREUDENBERG

### **DECORATIVE ELECTROPLATING**

### SurTec is Leading in Decorative Cr(III)-Technology



### **Applications**

- Pre-treatment for all metals
- Plating on plastics
  - ABS/ABS PC pre-treatment
  - PA pre-treatment
  - Chrome-free etch technology
- Decorative processes
  - Copper plating
  - Nickel plating
  - Chrome plating

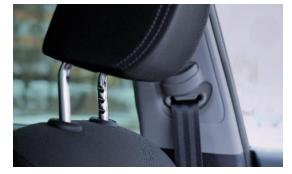
### **Technology Highlights**

- Pre-treatment for plating on plastics
   SurTec 961 and SurTec 962
- Copper plating offers best brightness and levelling
   SurTec 864 (alkaline), SurTec 866 and SurTec 867
- Nickel plating offers high corrosion protection
   SurTec 853 (semi bright), SurTec 851 (satin) and SurTec 859 (bright)
- Cr(III)-technology offers high corrosion protection
   SurTec 881, SurTec 882, SurTec 883 XT (SurTec 88x-family)

**More information** 



SurTec 882/SurTec 881: Plating on Plastics



SurTec 883 XT: Cr(VI)-free Decorative Chrome achieving identical colour values



SurTec 866: Acid copper



### **FUNCTIONAL ELECTROPLATING**

### SurTec is Leading in Zinc Technologies and Thick layer Passivation



### **Applications**

- Pre-treatment for all metals
- Cathodic corrosion protection
  - Zinc and zinc alloy processes
  - Passivations
  - Sealers & Top Coats
- Wear protection

### **Technology Highlights**

- Alkaline zinc & zinc/nickel & zinc/iron plating for ferrous metals
   SurTec 704, SurTec 708, SurTec 717, SurTec 712
- High flash point acid zinc for steel and cast iron
   SurTec 758 BC
- Cobalt-free passivation for zinc and zinc alloys
   SurTec 675
- Cr(VI)-free black passivates for zinc and zinc alloys
   SurTec 69x Family

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High End Top Coat for zinc and zinc alloys
 SurTec 554





SurTec 717: Alkaline Zinc/Nickel-Process



Zn/Fe-layer, black passivated



SurTec 680 (LC): Chromiting



### **FUNCTIONAL COATINGS**

### Comprehensive Product Portfolio from Locking & Sealing to Dry Lubrication



### **Applications**

- Locking function
- Sealing function
- Clamping function
- Dry Lubrication
- Conductivity (new)
- Reusability (new)
- PFAS-free (new)
- Stick-slip
- Wear resistance
- Media resistance
- Corrosion protection

### **Technology Highlights**

- World's leading high strength microencapsulated screw locking product precote<sup>®</sup> 85
- High strength microencapsulated screw locking product for small screws precote<sup>®</sup> 50
- Coating used for thread and under-head sealing precote<sup>®</sup> 15
- Anti-friction coating for elastomers:
   Klüberflex 300-0 N
- Anti-friction coating for metal application:

Klübertop TP 47-391, OKS 546



precote® 15 & precote® 85: microencapsulated screw locking



Anti-friction coatings for elastomers such as o-rings



Klübertop TP 47-391, OKS 546: Anti-friction coating for metal application



### **SERVICE**

### Global technical support and outstanding services

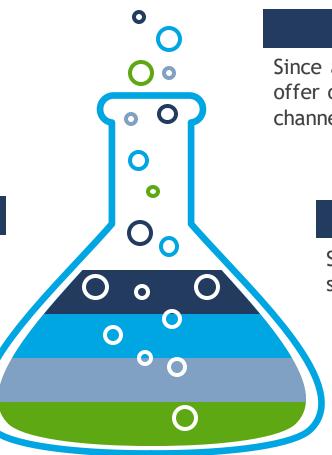


### Chemical & Analytical Services

With Technical Centres and regional laboratories in Asia, America and Europe, SurTec offers its customers diverse services.

### **Consulting Service**

SurTec offers excellent service with individual and sound advice. Together with you, we will find the optimal process. We also provide application consulting for manufacturers to OEMs incl. sample coatings.



### **Trainings**

Since a technical understanding is essential, we offer our customers support through several channels with seminars and training.

### **Engineering Service**

SurTec's range of services also includes support in system planning.

### **Digital Services**

We support you with innovative methods to supervise your processes.



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### **SUSTAINABILITY**

### Global goal of the Freudenberg Group: Climate Neutrality until 2045





Entrepreneurial Action with Responsibility



Sustainable & recyclable cleaning systems (e.g.: PET recycling & low temperature cleaners)



Sustainability goals apply without restriction throughout the Group



Elimination of critical substances from our products (e.g.: Chromium(VI), PFAS)



Certified quality, environmental and occupational safety management



You can get a comprehensive insight into our sustainability program in our current sustainability report, which you can view <a href="here">here</a>.



### **SELECTIVE CUSTOMERS**

### Customers from almost all Segments



#### **SCHAEFFLER**

LTH Castings

















**ArcelorMittal** 







































legrand































March 2024











## **Protection** upgraded



**THANK YOU**