TIB Chemicals AG – Chemicals with added value

- Since more than 140 years TIB Chemicals manufacture high quality products in several production sites and market these worldwide.
- The infrastructural site of Mannheim is enable the uncomplicated and ready transport on road, sea and railway.
- Products of TIB are to be found in oil production, petro-, automotive- and food industry plus in many fields of daily life.
- TIB Chemicals use progressive recycling processes in business units to make limited resources available for production.
- TIB Chemicals with approx. 450 staff works every day with sense of responsibility, know-how and customer focus to be a global partner for chemistry.
History

- **1872**: Chemical factory Rheinau founded (acids and sodium carbonates)
- **1912**: Company renamed Goldschmidt TIB GmbH
- **1999**: Company taken over by TFO GmbH in form of an MBO and renamed TIB Chemicals AG
- **2006**: Acquisition of Goldschmidt Quimica de México in San Luis Potosi, Mexico, by Goldschmidt TIB GmbH and renamed TIBChemCorp. Mexicana, S.A. de C.V.
- **2010**: Acquisition of Königswarter & Ebell Chemische Fabrik GmbH, Hagen/Germany
- **2014**: TIB Chemicals Corp., Houston, USA founded
- **2015**: Founding of the new subsidiary CoaTIB GmbH in Mannheim
- **2018**: Sale of Königswarter & Ebell Chemische Fabrik GmbH, Hagen to Pure Batteries Technologies Germany GmbH with view to a long-term co-operation
- **2020**: Sale of BNT Chemicals GmbH to IBU-tec advanced materials GmbH, Weimar with view to a long-term co-operation
Turnover 2019 by regions

- Europe: 35%
- Germany: 53%
- America: 8%
- Asia: 2%
- Africa: 2%

Shares of turnover 2019

- Metal Chemicals & Finishing Products: 41%
- Basic Chemicals: 22%
- Catalysts: 16%
- Coatings: 9%
- Bitumen: 12%
# BUSINESS UNITS

## TIB CHEMICALS

<table>
<thead>
<tr>
<th>Basic Chemicals</th>
<th>Coating Systems</th>
<th>Metal Chemicals &amp; Finishing Products</th>
<th>Catalysts &amp; Process Additives</th>
<th>Bitumen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Corrosions protection</td>
<td>Copper chemicals</td>
<td>Catalysts</td>
<td>Road construction bitumen</td>
</tr>
<tr>
<td>Sulphur Chemicals</td>
<td>Thermal curing systems</td>
<td>Nickel chemicals</td>
<td>Process additives</td>
<td>Casting compounds</td>
</tr>
<tr>
<td></td>
<td>Sealings for domestic pipes</td>
<td>Tin chemicals</td>
<td>Alkyl chlorides</td>
<td>Special bitumen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zinc chemicals</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Organic chemicals</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Other specialties</td>
<td></td>
<td></td>
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</tbody>
</table>

Recycling
05 Basic Chemicals
Basic Chemicals

Products

- Sulphuric acid
- Hydrochloric acid
- Ammonium thiosulphate
- Ammonium bisulphite
- Sodium thiosulphate
- Sulfides

Applications

- Chemical industry
- Metal industry
- Food industry
- Water and wastewater treatment
- Agro industry
- Pulp- and paper industry
- Crude oil industry
- Derived timber industry
- Photo industry
- Leather industry
# Basic Chemicals - Examples for fields of application

<table>
<thead>
<tr>
<th>Agro industry</th>
<th>Food industry</th>
<th>Metal industry</th>
<th>Wood industry</th>
<th>Water &amp; wastewater</th>
</tr>
</thead>
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<td><img src="image3" alt="Metal Industry" /></td>
<td><img src="image4" alt="Wood Industry" /></td>
<td><img src="image5" alt="Water &amp; Wastewater" /></td>
</tr>
</tbody>
</table>
05 Coating Systems
Coating Systems

Products
- Corrosion protection systems & coating systems
- PROTEGOL® corrosion protection based on
  - Polyurethane
  - Epoxy resin

Applications
- Pipeline industry oil, gas, water
- Fittings, formed components & construction of tanks
### PROTEGOL® - Examples for fields of application

<table>
<thead>
<tr>
<th>Pipelines</th>
<th>Tanks &amp; vessels</th>
<th>Water pipelines</th>
<th>Weld coating</th>
<th>Primer for concrete substrate</th>
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- **Pipelines**
- **Tanks & vessels**
- **Water pipelines**
- **Weld coating**
- **Primer for concrete substrate**
Metal Chemicals & Finishing products
MOC – Metal Chemicals & Finishing products

Products

- Copper chemicals
- Nickel chemicals
- Tin chemicals
- Zinc chemicals
- Organic chemicals
- Other specialities

Applications

- Surface treatment
  - Electronics
  - Hot-dip galvanising
  - Electroplating
- Heterogeneous catalysis
- Pharmaceuticals & cosmetics
- Pigments & ceramics
- Automotive
- Construction chemicals
# MOC - Examples for fields of application

<table>
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<tr>
<th>Pharmaceuticals &amp; cosmetics</th>
<th>Hot-dip galvanizing</th>
<th>Pigments</th>
<th>Construction chemicals</th>
<th>Heterogeneous catalysis</th>
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Catalysts
Catalysts & Process Additives

Products

- Inorganic tin catalysts
- Organotin catalysts
- Metal catalysts (zinc, bismuth, etc.)
- Sulphonic acid catalysts

Applications

- Adhesives & Sealants
- RTV-silicones, silan-terminated/modified polymers, polyurethane etc.
- Paints & coatings
- Powder coating, polyurethane etc.
- Binders
- Production of alkyd resin, saturated & non-saturated polyester
- Pharmaceutical applications
## TIB KAT® - Examples for fields of application

<table>
<thead>
<tr>
<th>Oleo-chemistry</th>
<th>Paints &amp; coatings</th>
<th>Adhesives &amp; sealants</th>
<th>Polymer processing</th>
<th>Binders</th>
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©TIB Chemicals AG
05 Bitumen
Bitumen

Products

- Toll manufacturing for multinational petroleum companies
- REINAU®-
  Casting compounds
- REINAU®-
  Sealing compounds
- REINAU®-
  Filling compounds
- Special bitumen / Heavy-duty bitumen (PRODODIN®)

Applications

- Road construction
- Highway repairs
- Railway construction
- Sealing sheetings
- Sealing compounds for concrete and asphalt joints, rail joints and pavement sealing
- Heavy-duty bitumen for road-, airport-, rubber applications, sealants
Bitumen - Examples for fields of application

<table>
<thead>
<tr>
<th>Road construction</th>
<th>Runways</th>
<th>Sealing compounds</th>
<th>Rail embedding compound</th>
<th>Bitumina for roofing</th>
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Sustainability is central part of the corporate culture. With preserve resources and minimize climate-wrecking emissions in mind producing. The indispensable cornerstone of corporate policy is the responsibility of environment and get help to TIB Chemicals to check constant the compliance with regulations and measurement for themselves.
CHEMISTRY WITH ADDED VALUE – RECYCLING Management

As a certified recycler, TIB Chemicals redeems waste from clients to produce new high-quality products.
TIB Chemicals offers an environmentally safe, legal-friendly, resources-saving, and a one-stop ideal solution based on a region-wide network of recycling units.
TIB Chemicals use progressive recycling processes to make limited resources like copper, nickel, tin and zinc available for production.
Waste code by AVV

**Zinc:**
- Zinc pickling solution – AVV 11 01 05*
- Rinsing fluids – AVV 11 01 11*
- Used flux – AVV 11 05 04*
- Filter dust
  - AVV 10 05 03* AVV 11 05 03* AVV 10 05 05*
- Ash AVV 11 05 02
- Filter cake – AVV 11 01 09*
- Used Zinc chloride solution – AVV 16 10 01*
- Zinc sludge – AVV 11 01 09*
- Flux sludge – AVV 11 01 09*

**Copper:**
- Copper etching solution – AVV 11 01 05*

**Iron:**
- Steel pickling solutions – AVV 11 01 05*
- Rinsing fluids – AVV 11 01 11*
- Iron sludge – AVV 11 01 09*

**Tin:**
- Tin stripper – AVV 11 01 05*

**Others:**
- Degreasing – AVV 11 01 13*
- Degreasing sludge – AVV 11 01 09*
Research & Development
Research & Development

- On TIB Chemicals 7% of staff are working for R&D and they providing high quality products.
- Low toxic catalysts for sealant and adhesive applications
- Chrom VI substitute for galvanizing
- New sulphur additive for oilfield applications
- High resistant pipeline coatings based on epoxy resin
- Environmentally friendly coatings with drinking water approval
07 | Quality Management
At TIB Chemicals, we employ a centrally run management system for the global management structures necessary to guarantee responsible entrepreneurial actions and conduct.

With this central tool, we have created a transparent system of values and rules that bind the management and all staff.

Mannheim Site Certified according to DIN EN ISO 9001
Mexico Site
Certified according to

ISO 9001

OHSAS 18001

ISO 14001
08 Advantage over competitors
Advantage over competitors

- Customer-related product development
- Strong assistance to customers in special applications
- Research & development department
- Excellent infrastructure (our own Rhine port, railway and highway connection)
- Cost efficient energy and raw material sourcing
- Reliability of supply and flexibility
- Highest standards regarding safety, quality and environmental protection
- Flexibles structures of a mid-sized company
- Medium- and long term strategy rather than short-term profit
- Stable financial basis
Sites

TIB Chemicals AG – Mannheim Site

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