

# Automotive, Mobility Solutions & Energy Storage Insight

	Laboratory Supplies	
	Chemicals	
	Laboratory Safety and Cleanroom Products	Business Card
3	Equipment & Instruments	\



### Battery & Energy Storage

From raw materials, through to the production of anodes and cathodes, battery cells, housing and final module assembly, we can provide you all the way with a range of chemicals, consumables and PPE (personal protective equipment) to meet your most demanding manufacturing requirements.

We can also supply a range of equipment, instruments and apparatus to support your continuous formulation, analytical testing, QC and QA of source materials, manufactured components and final product.

This includes dedicated battery test chambers optimised in accordance with the Global Standard Legislation EUCAR Hazard Levels 0 to 7, UL 1642 Standard for Lithium Batteries, UL 2054 Household and Commercial Batteries, and IEC 62133 Safety Requirements for Portable Sealed Secondary Cells. We can also offer:

- Incubators, circulating baths and climate chambers for storage and ageing testing
- Titrators, viscometers, digital imaging systems, chromatographic and spectrophotometric systems for characterisation and performance testing

It also goes without saying that your basic laboratory R&D of new and innovative product will also be supported by our wider chemicals and equipment portfolio, all backed up with first-class sales, technical and customer service.

In short, we will work with you to help you develop and deliver:

- Successful, profitable battery products that store energy and deliver current!
- Batteries tested for endurance and mechanical integrity under different environmental conditions
- · Personal safety at all stages during the entire manufacturing lifecycle





## Automotive & Mobility Solutions

From formulation, pure research research through to final manufacture, we provide a comprehensive catalogue of analytical consumables, instruments and PPE safety equipment to support a range of operations such as basic engineering, prototyping, and the characterisation and process integration of smaller, stronger and lightweight innovative materials.

Our instrument and equipment portfolio is ideal for the analysis and testing of:

- Anode, cathode and separator
- Metal paints and other coatings
- Corrosion, attrition and other wear and tear
- Particulates and emissions
  Tyre cord adhesion and carbon black chemistry
- Our temperature control (bath and circulator) systems:
- Offer a wide temperature range without bath fluid changes
- Deliver quick temperature changes to simulate the cooling circuits of vehicles or environmental fluctuations

- Synthetic lubricant additives
- Upholstery testingFailure analysis
- Temperature control
- Recycling testing

erature • Reliably control test fluid specimens, optimise heat

specimens, optimise heat input and dissipation and simulate environmental conditions during highly sensitive investigations



### Choice and Convenience

### Chemicals & Reagents

We can supply you with a comprehensive range of high-purity metals and other materials, catalysts and catalytic components, anodic and cathodic constituents, organics, inorganics, solvents and general reagents from our Fisher Chemical, Acros, Alfa Aesar and Honeywell portfolios.

Our specialised chemical services are also able to offer tailored solvents or solvent blends to your own specification, customised pack sizes or pack labelling, supply chain control and integrity, special testing capability plus inventory management with lot control.





#### Lab Essentials, Consumables & Equipment

We have one of the most comprehensive European portfolios available, sourced from the following key suppliers:



#### Safety Products

asecos

Our safety portfolio is sourced from leading industry manufacturers to ensure you and your workplace remain safe and compliant, mitigating the risk of injury and fire. As well as a comprehensive selection of Personal Protective Equipment, we also offer spill control materials and a new range of industrial-scale battery storage and charging cabinets, in addition to solutions for the safe storage of harmful and flammable chemicals and gases













#### Formulation, Compounding & Analysis

As the world leader in serving science, Thermo Fisher Scientific provides the widest range of analytical instrumentation for analysis, testing and formulation, including:

- Torque rheometry and extrusion
- Viscometry and Rheometry
- X-ray photoelectron spectroscopy (XPS/ESCA), X-ray diffraction (XRD), X-ray fluorescence (XRF)
- Electron microscopy with the Phenom<sup>™</sup> Desktop SEM (SEM, TEM and FIB-SEM)
- Spectroscopy and Microscopy (FTIR, Raman and NIR)
- Mass spectrometry (GC-MS, HPLC, LC-MS, HREMS-MS, TEA), micro-CT
- Nuclear magnetic resonance (NMR)
- · Microscopy and digital optical imaging systems



#### Contact us today:

Austria: +43(0)800-20 88 40 Belgium: +32 (0)56 260 260 Denmark: +45 70 27 99 20 Germany: +49 (0)2304 9325 Ireland: +353 (0)1 885 5854 Italy: +39 02 950 59 478 Finland: +358 (0)9 8027 6280 France: +33 (0)3 88 67 14 14 Netherlands: +31 (0)20 487 70 00 Norway: +47 22 95 59 59 Portugal: +351 21 425 33 50 Spain: +34 902 239 303 Sweden: +46 31 352 32 00 Switzerland: +41 (0)56 618 41 11 UK: +44 (0)1509 555 500

© 2020 Thermo Fisher Scientific Inc. All rights reserved. Trademarks used are owned as indicated at fishersci.com/trademarks. fisher scientific

part of **Thermo Fisher Scientific**