

Global Experts in **Process Safety**





Today our organization spans the globe, ensuring we deliver our expertise on a local-for-local basis to any customer, in any location.

Chilworth Global – Your Partner in Process Safety

Over the past three decades, Chilworth Global has made your safety our business. Originally established to offer a reliable resource for the process industries, Chilworth Global has grown steadily in capability and reach to become the leading expert in Process Safety.

Today our organization spans the globe, ensuring we deliver our expertise on a local-for-local basis to any customer, anywhere. From cutting-edge consulting and testing services to the professional development offered through our unique Academy, Chilworth Global delivers a complete Process Safety solution. This breadth of service is matched only by the expertise of our specialists, many of whom are leading authorities in their field.

Our commitment to quality, professionalism and integrity guarantees that we not only deliver expert advice, but continually innovate to ensure our safety solutions are at the forefront of process safety. As a result, the world's leading industries recognize the value we bring to their operations - and rely on us to ensure they operate with maximum efficiency and complete peace-of-mind.

Our range of services includes:

- **Comprehensive laboratory testing services** to determine hazardous properties of process materials, conducted in our state-of-the-art laboratory test facilities sited around the globe
- Expert consulting services to support good **process safety management** practice in your organization
- An unrivalled technical consulting team, dedicated to assessing, and problem-solving every aspect of **Process Safety Engineering**
- Expert training from our leading industry experts via our unique **Process Safety Academy**
- **Also from Chilworth Global:** Project engineering, specialist electrostatic work, energetic materials assessment, fire testing / engineering and specialist instrument supply.

Serving Clients in...

Aerospace
Agrochemicals
Chemicals / Fine Chemicals
Cosmetics
Engineering
Food & Drink
Government
Insurance Companies
Law Firms
Metals
Oil & Petrochemical
Personal & Household products
Pharmaceuticals
Plastics & Rubber
Power
Water / Waste
Wood / Paper

Process Safety: Preventing explosions, fire and accidental chemical releases in plants where hazardous materials are handled.



Process Safety Information – Laboratory Testing

Good Process Safety practice demands a thorough understanding of the hazardous physical and chemical properties of materials you process.

Chilworth Global can manage your entire materials testing requirements, offering a turnkey service that not only collects data through rigorous experiment and testing but also interprets and reports the results. And for our partnership program clients we offer access to our Internet collaborative environments.

Our global network of test facilities gives your business full access to cutting-edge facilities and dedicated laboratory test teams. We offer more than 300 standard test procedures, as well as the research capability to conduct unusual or complex customized testing.

The result is an expert and trusted service that not only delivers quality controlled results, but removes the pressure on resource and maintaining compliance standards associated with in-house testing.



Standardized Testing

Dust Explosion, Gas/Vapor
Explosion, Hybrids

Chemical Reaction Hazards -
Screening, Runaway Simulations
and Process Characterization

Thermal Stability

Energetic Materials Properties -
Propellants, Pyrotechnics, Explosives

Fire - Standard Tests and Special Tests

Regulatory - REACH, SDS, DoT, GHS,
CLP, UN Transportation, OSHA

Static Electricity

Speciality Tests / Research Capability

Active/Toxic Materials Handling

High Temperature / High Pressure
Capability

Remote Test Sites for Large Scale
Testing

Containment Facilities and Open
Test Bunkers

Process Safety Management – Consulting Services

Process Safety Management is the bed-rock of good Process Safety performance.

Whatever your company size or complexity of operations, our combined global experience makes it highly likely that we can improve your systems and optimize performance.

Whether implementing your first safety management system, bringing current procedures up-to-date or looking to expand your infrastructure, we will help you get the best from your people and processes.

We can:

- Design Process Safety Management systems
- Assess & correct a deficient system
- Improve Process Safety Management practice

Regardless of whether your requirements are regional, national or international, our global management network will meet your professional and technical needs – and can further boost your performance by calling on our technical specialists, trainers and laboratories as required.

For the most effective project cooperation, our client partnership programs enable us to share our Internet collaborative environments directly with you.

Process Safety Engineering – Consulting Services

Process Safety Engineering requires a wide range of specialized skills and competencies, many used only in response to a specific requirement or unique situation.

Whatever your Process Safety needs, we have the technical skills and breadth of experience to support your business. Whether you are carrying out a safety review, implementing safety audits or ensuring compliance with standards or regulations, we have the up-to-date resources and skills to complete the task. And if you require help with problem solving or incident investigation, you can rely on impartial advice and support from our experienced team whenever you need it.

Most importantly, our team is your team. Chilworth Global's consultancy services can be built around your precise business needs; whether adding to your capabilities or supporting you on a short, medium or a permanent basis through our partnership programs.

Our Process Safety Engineering services include:

- Safety Studies
- Audits and Assessments
- Call-off Support
- Benchmarking
- Incident Investigation
- Regulatory Compliance

Process Safety Management

Process Hazard Analysis
(HAZOP, LOPA, FMEA, FTA)
Process Safety Information
Operating Procedures
Training (see Academy)
Contractor Safety
Pre-start-up Review
Mechanical Integrity
Hot-work Permits
Management of Change
Emergency Planning & Response
Incident Investigation
Compliance Audit

Process Safety Engineering

Dust, Fire and Explosion Hazards
Flammable Liquids & Gases
Reactive Chemical Hazards
Thermal Stability
Electrostatic Hazards
Energetic Materials (Explosives, Propellants, Pyrotechnics)
Hazardous (Electrical) Area Classification
Mechanical Equipment Ignition Risk Assessment
Consequence Modelling
Transport & Classification of Dangerous Goods Safety Data Advice
Expert Evidence / Litigation Support



Chilworth Process Safety Academy

Sharing knowledge is what we do; it is our guiding principle. By sharing our expertise, Chilworth develops long-term customer relationships that give the in-depth understanding required to achieve excellence in Process Safety Engineering and its Management.

Taking these principles further, Chilworth Global has founded the Process Safety Academy, created to deliver knowledge to the standards that reflect our authority in Process Safety. We offer a range of structured courses, taught by our team of leading experts, which train, educate and develop skills for a range of audiences, including:

- One-to-one individual training
- Team training
- Company-wide training to a consistent standard
- Global group training to a consistent corporate standard

The Process Safety Academy offers the most specific and relevant training of its type in the world, delivered globally in multiple languages across a comprehensive range of platforms and media. Ways to learn include:

- In-company courses tailored for your industry or company – and to different levels
- Open public courses – delivered to a global standard
- Internet-based learning programs
- Broadcast and interactive webinars



Additional Services from Chilworth Global

Project Engineering Capability

Chilworth Global's Project Engineering team is highly experienced in all aspects of plant engineering, particularly where hazardous and complex processes are involved. Whether you require a new build or modification of existing facilities, our team can help support and manage all stages of your project, including:

- **Process Evaluation;** scoping and feasibility through to budgeting forecast
- **Process Design;** specializing in basic engineering, leading to detailed engineering
- **Plant Start-up;** commissioning and hand-over services

Process Safety Laboratory and JCI Electrostatics Equipment

Chilworth Global has supplied apparatus to industry and academic institutions since 1986. The instruments we supply, for measuring electrostatic, explosion and thermal stability properties, have a proven track record in industry – and their performance and reliability is validated by their use in our own laboratories.

We offer a complete international instrument supply service, supported by detailed documentation, efficient after-sales support and comprehensive equipment warranties.

Electrostatic Testing and Consulting Services

Static electricity causes manufacturing problems, and sometimes fires and explosion hazards for many companies, yet static electricity can sometimes be harnessed for good. We have specialist staff, equipment and laboratories to advise, test and solve your electrostatic issues, as well as research capability for developing new applications.

Energetic Material Assessments

We have unique facilities for testing of propellants, pyrotechnics and explosives both for research and for classification (DoT, UN, etc.). We also offer full PHA / PSM consulting support.

Fire Test and Fire Protection Engineering

We offer specialists in fire protection engineering, litigation support, fire investigation and fire modelling to examine all aspects of how fire could impact on your operations. The team is fully supported by our full scale test laboratory, which provides a research capability, modelling and standard fire testing to ensure the most accurate possible risk assessment.



Why companies choose Chilworth Global

Our Team is Your Team

By choosing Chilworth Global, you gain access to a global network of experts and resources, available wherever and whenever you need them:

- World-class, in-depth process safety management and engineering expertise
- A wealth of process safety specialists with a breadth of experience and knowledge that is second to none
- Access to the largest range of process safety tests in the world
- Laboratories and consulting offices in North America, Europe and Asia
- Multiple language capability/cultural match
- A commitment to quality, professionalism, integrity and fairness in all of our work.

We Understand our Customers

Chilworth's name has become synonymous with quality, service, independence and value. Our clients tell us that they come to Chilworth because of our:

- Commitment to quality
- Excellent reputation and high level of referrals
- Scope of expertise and resource availability
- Cultural match via our regional teams to deliver true 'local-for-local' delivery
- Value-added after-sales support
- Co-ordinated approach to multi-site, multinational clients via our partnership programs.

A Truly Global Delivery

Our specialist teams are available via technical support staff based across our worldwide network.

To find your nearest provider, visit our group website at

www.chilworthglobal.com or email:

USA: info-usa@chilworthglobal.com

France: info-fr@chilworthglobal.com

India: info-in@chilworthglobal.com

Italy: info-it@chilworthglobal.com

Spain: info-es@chilworthglobal.com

UK: info-uk@chilworthglobal.com

