

Ciba[®] EHS Services

Industry-leading EHS solutions for a sustainable business



- EHS Management & Compliance Solutions
- Environmental Technology
- Business Sustainability
- Powder Safety & Powder Handling Consulting
- Environmental, Health & Safety Testing

Ciba EHS Services is the partner of choice for quality environmental, health and safety services

EHS Management & Compliance Solutions

Our experience across a wide range of businesses enables us to provide cost-effective solutions for compliance with environment, health and safety legislation through:

- EHS management and reporting systems
- IPPC strategies
(Integrated Pollution Prevention and Control)
- Environmental and packaging legislation support
- Environmental impact assessment
- Environmental and safety compliance auditing
- Environmental and safety due diligence
- Accident investigation
- Risk analysis

Environmental Technology

Our extensive experience of designing and operating plants puts our technical experts at the forefront of the technology. This practical experience can help you optimize your waste treatment processes, using:

- Situation analysis to commissioning (conceptual design, basic engineering, optimization and technology evaluations)



- Treatability studies & biodegradation analysis
- Waste management services
- Troubleshooting and optimization of existing facilities
- Manufacturing and process improvement
- Fuel comparison and energy recovery

Business Sustainability

We undertake a wide range of EHS strategic activities for a diverse range of clients, covering:

- Advice to develop sustainability and corporate responsibility programs tailored to your business
- Eco-design and life cycle assessment
- Environmental assessment of new or existing products
- Recycling strategy, marking and labeling
- Communicating your sustainability aims & achievements
- Management of change
- Business development through sustainable product development & eco-engineering



Case Study 1



Business Sustainability and Resource Efficiency

Problem: A major company needed to understand the environmental issues surrounding its packaging, to develop policies and to communicate these to product development teams, shareholders and customers.

Solution: A sustainable packaging policy was developed for the company. Business processes and tools were designed to build the policy into the company's new product development processes. A marketing brochure and a technical guidance document were produced. Aims and objectives were then communicated to shareholders.

Benefits and Savings: The client successfully reduced their packaging costs – in one product line alone, 15,000 tonnes of packaging were eliminated, saving US\$ 2.5 million annually. Improved legal compliance and favorable institutional shareholder feedback were achieved.

Our passion to deliver helps our clients achieve compliance, efficiency and sustainable success in their business



Process Safety and Powder Handling Consulting

Our Safety Services include the necessary training, consulting and testing on all aspects of powder handling and processing operations. Many of the evaluation technologies and international testing standards were derived from our effective EHS management techniques and extensive manufacturing experience around the globe. Our practical and thorough approach will provide cost effective benefits to your organization.

- *Process and Thermal Safety*
- *Electrostatics and Dust Explosion Hazards*
- *Process Hazards / Risk Assessment*
- *EHS Management Systems and Operational Guidelines*
- *Accident Investigation and Expert Witness Support*
- *Transportation of Dangerous Goods*

EHS Testing

Our testing capabilities can provide you with access to some of the latest testing equipment in the industry as well as the expertise of our technical experts, who can advise on use of the data in risk assessment:

Safety Testing

- *Minimum ignition energy (MIE)*
- *Dust explosion indices (K_{st} & P_{max})*
- *Minimum auto-ignition temperature (MAIT) of dust clouds or accumulated layers*
- *Burn testing / combustibility*
- *Kinetic and thermodynamic reaction data*
- *Thermal stability data*
- *Thermal stability indices and maximum rate data*
- *Flammability limits of gases and vapors*

Environmental Testing

- *Generation of comprehensive ecological data*
- *Identification/measurement of pollutants in environmental matrices*
- *Method development and consulting*
- *Off-gas and wastewater analyzing*

Occupational Hygiene

- *Air monitoring*
- *Workplace exposure*
- *Risk assessment*
- *Noise and vibration measurement*



Case Study 2



Powder, Process and Thermal Stability Testing

Problem: An international manufacturer of monomer systems encountered issues with thermal runaway reactions in production and transportation of their products and was faced with significant liability.

Solution: Based on a systematic measurement of reactivity and a thorough review of existing practices, Expert Services developed a Thermal Process Safety Guideline to address potential issues throughout the product life cycle. The client was then able to consistently assess the risk associated with R&D materials to commercial products manufactured around the globe. In addition, multi-lingual training and access to our global testing facilities and consultants have proven to be very beneficial in this cost effective partnership.

Benefits and Savings: The client rapidly gained an effective approach to consistently manage reactive chemical safety throughout their global organization. In addition to significant cost savings were benefits in reliability, compliance and piece of mind.

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Our Knowledge – Your Advantage

Ciba Specialty Chemicals Worldwide

We do business in more than 120 countries and have sales representatives and technical expertise available for our customers around the world.

To find the representative nearest you, visit www.cibasc.com/find

