



WORKING FOR A HEALTHIER FUTURE

Chemical Risk Services



Why Use IOM?



IOM is a leading international provider of health and safety solutions to industry, commerce, public sector and professional bodies.

We have an international reputation for authoritative and independent expertise in workplace health, hygiene, and safety, with the support of an exceptionally well qualified and experienced team of Chartered Scientists.

Our aim is to enable you to make informed and objective management decisions that meet your business needs. We work with you to ensure that our services reflect your operational needs whilst ensuring that you remain compliant with current legislation and best practice.

Whether your requirement is for strategic advice, expert opinion, on-site measurement and monitoring or multi-disciplinary research, IOM will be delighted to help.



Our Company

Working for a healthier future

IOM delivers the broadest range of workplace health services in the UK. With over 100 specialist staff allocated across three UK locations. We work for thousands of organisations and our clients know that through IOM, they can access some of the UK's most experienced health and safety experts.

IOM helps employers deliver world class workplace practices:

- We understand the factors that affect human health in the workplace and the wider environment.
- We identify and promote practices which can improve the health of workers and the wider population.

We help all types of organisations in all sectors deal with risks from established workplace hazards such as noise, chemicals, asbestos, heat, dust or vibration and emerging risks from new technologies such as nanotechnologies. Our support also extends to Expert Witness services.

Good health means good business. As experienced consultants and service providers, we understand what organisations need to do to protect their employees and their businesses. We establish true best practice, provide accurate insight into workplace health issues in your organisation and promote cost-effective solutions.

IOM has an international reputation for excellence in our research, services and consulting across all industry sectors from high technology to heavy industry. Our clients benefit from the experience of foremost experts in their fields. An understanding of workplace health is critical to every business and IOM can ensure your organisation is at the forefront of good practice as we work together for a healthier future.

Chemical Risk Services

Consultancy & laboratory support

At IOM, our Chemical Risk Services support your product stewardship by reducing uncertainty, managing risks and helping you meet regulatory compliance obligations. In addition, our services are available to provide evidence supporting civil litigation cases involving exposures to chemical substances.

Keeping pace and meeting regulatory requirements is a critical challenge. Whether you are an SME, major industrial company, research organisation or university, we provide independent and practical advice to help navigation through often complex and dynamic regulatory landscapes.

Our approach is tailored to meet your specific needs, providing expert, cost-effective services for your company based on our knowledge and experience as a leading authority in assessing chemical risks. We identify and help you address your obligations, safeguarding the responsible use and commercial success of your products.

We specialise in:

- Chemical Risk Consultancy
- Risk Communication
- Substance Characterisation
- Toxicological Evaluation
- REACH Compliance Management

We are proud to support industrial clients in a diverse range of sectors to understand and meet regulatory requirements, and provide assessments and advice for managing chemical risks in the workplace. In addition, we have a track record of being the partner of choice for regulatory agencies across Europe in relation to chemical risks, and in particular nanomaterials regulation under REACH.





1. Chemical Risk Consultancy

Duty of care with chemical risks

Every employer and employee has duty-of-care responsibilities to assess and manage the risks presented in the workplace. Working with chemical substances requires consideration of safety issues under the Control of Substances Hazardous to Health Regulations (COSHH), EC Directive 98/24/EC on risks related to chemical agents at work, and other equivalent legislation elsewhere.

Undertaking risk assessment is an essential part of complying with your regulatory obligations. Risk assessment is a pragmatic and systematic process to identify and manage potential health and safety hazards. The evaluation of risk should be made using the best available information, so that appropriate control strategies can be developed and implemented to eliminate or reduce the risk.

IOM is a leading provider of chemical risk assessment services, providing you with:

- A basis for responsible stewardship of chemical products and regulatory compliance;
- Foresight of emerging issues along the supply chain;
- Support for strategic decision-making, investment, market access, product developments & business risk management.

Our services include:

- Scoping of regulatory frameworks within key target markets;
- Risk assessments through integration of hazard and exposure evaluations, with recommendations on safe practice and appropriate control measures;
- Compliance checks with advice and support to identify your obligations;
- Evidence appraisal to inform policy, guidance and standards development;
- Bespoke training to understand and manage risks.

2. Risk Communication

Clear and concise hazard communication

Suppliers of chemical products have a responsibility to ensure that any hazards are clearly and concisely communicated to customers down the supply chain. If you place a hazardous substance or mixture on the European market, you have a responsibility to notify the European Chemicals Agency (ECHA) of its classification and labelling within one month of placing the chemical product on the market for the first time.

In Europe, suppliers must classify, label and package their products in accordance with the CLP Regulation. This regulation implements the Globally Harmonised System

of Classification and Labelling of Chemicals (GHS), which provides a basis for internationally-harmonised hazard communication using standard statements and pictograms. Classifications made under previous legislation (i.e. the Dangerous Substances Directive) should be re-evaluated and translated into CLP classifications.

We can help you manage your hazard communications from both a regulatory and business perspective, including:

- Identification and scoping of your obligations under the CLP Regulation;
- Collation and evaluation of available hazard data;
- Classification and labelling of substances and mixtures according to CLP criteria;
- Notification to the C&L Inventory;
- Preparation of REACH/CLP-compliant (extended-) Safety Data Sheets and product hazard labels.

3. Substance Characterisation

Enabling unambiguous substance identification and providing physico-chemical data

Substance characterisation and identification is an important pre-requisite to most regulatory processes, including REACH and CLP, and allows a robust and fit-for-purpose hazard and risk assessment to be undertaken.

We can help you to confirm the chemical identity and composition of your substances, supported by clear analytical evidence, including:

- Reviewing and interpreting existing characterisation data;
- Designing an appropriate and cost-effective test strategy;
- Laboratory analysis to support the risk assessment of chemicals, including nanomaterials.

Our range of specialist analytical services include:

- Chemical analysis* of organics, inorganics and metals by GC-MS, HPLC, IC, ICP-AES, SEM/EDXS, FTIR, XRD;
- Morphology and elemental sample analysis (SEM/EDXS);
- Particle Size Distribution (PSD) by laser diffraction:
 - Dry powder (100 nm – 3500 µm) to ISO 13320:2009;
 - Wet dispersion (5 nm – 3500 µm) to ISO 13320:2009 and ISO 14487:2000;



- Calculated Size Weighted Respirable Fraction (SWErf) analysis, including crystalline silica specific SWErf in mixtures for CLP;
- Dustiness evaluation to EN 15051-2;
- Dynamic light scattering (DLS) for particle size, zeta-potential and molecular weight analysis;
- Elemental Carbon determination (NIOSH 5040) for carbon-based nanomaterials;
- Moisture determination to EN 15051-1;
- Bulk density determination to EN 15051-1;
- Particle density by helium pycnometry;
- Bio-durability assessment;
- Other specialist characterisation (e.g. TEM, BET, XPS, SIMS, Raman).

* Various analyses are covered by our ISO 17025 UKAS accreditation.

We also undertake bespoke method development for providing characterisation data to support Safety Data Sheets, product validation, and regulatory compliance in the absence of established methods.

4. Toxicological Evaluation

Understanding the hazards associated with a substance

This is an essential part of identifying and controlling risks, correct labelling, and also a key part of regulatory submissions. Using a combination of our own internal toxicological expertise and collaboration with selected partners with further experimental facilities, we can help identify and deliver on client needs in relation to assessing hazards and characterising risks considering a holistic and pragmatic approach to data generation and analysis. Our range of services includes:

- Reviewing and interpreting existing data;
- Developing toxicological profiles for hazard classification and advising on the need for new data;
- Working with selected partners to develop toxicological protocols, analysis and data;
- Establishing Derived No Effect Levels (DNELs) for human exposures;
- Permitted Daily Exposure (PDE) limits for Active Pharmaceutical Ingredients (APIs);
- Considering relevant limits in relation to exposures and making recommendations on risk management measures (RMMs) and operational conditions (OCs) to address issues.

5. REACH Compliance Management

Supporting you through the REACH process

Under the REACH Regulation, industry has a responsibility to identify and manage the risks associated with the chemicals they manufacture and market in the EU. Manufacturers and importers of substances in quantities of 1 tonne or more per year need to gather information on substance properties and uses, make an assessment of hazards and potential risks, and submit a registration dossier to the European Chemicals Agency (ECHA) demonstrating that any risks are adequately controlled. Failure to register within the required timescales means that the substance will no longer be allowed to be manufactured or imported until compliance is achieved.

REACH places a significant burden on industry and presents numerous challenges, particularly to small and medium sized enterprises (SMEs) that may not have the resources available to meet registration requirements.

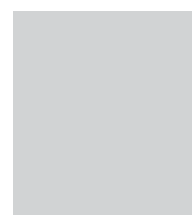
We can help you achieve REACH compliance and ensure the continued success of your products through providing tailored and cost-effective support and advice. Our range of services includes:

- Scoping of regulatory obligations under REACH;
- Substance identification and characterisation;
- Preparation of an Inquiry Dossier to enable data sharing;
- Collation and review of existing information on substance properties and identification of data gaps;
- Preparation of a registration dossier in IUCLID and pre-submission screening;
- Development of testing proposals;
- Preparation of a Chemical Safety Report using CHESAR;
- Establishing Derived No Effect Levels (DNELs) and Risk Characterisation Ratios (RCRs) for human exposures;
- Identification of exposure scenarios and exposure assessment based on existing data and modelling with additional measurements;
- Support for gathering information on uses from downstream users;
- Provision of guidance and training on REACH processes and related topics.



IOM – working for a healthier future across a wide range of workplace and environmental health needs.

- Occupational Hygiene
- Chemical Risk Services
- Lab Analysis
- Safety of Nanomaterials
- Environment and Public Health
- Human Factors & Ergonomics
- Specialist Hospital Ventilation
- Expert Witness Services
- Training
- Research
- Asbestos in Soils



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