

CHEMICAL LEGISLATION: AN OVERVIEW

Introduction

The Health and Safety Authority is responsible for the administration and enforcement of a range of chemical safety legislation which aims to protect people and the environment from the harmful effects of dangerous chemicals. In this document summaries of the key pieces of legislation are presented. In addition, a list of relevant websites (Annex I) and a list of the current chemical safety legislation in force (Annex II) is presented.

(1) The Safety, Health and Welfare at Work Act 1989 (No. 7 of 1989) and the Safety, Health and Welfare at Work (General Application) Regulations 1993 (S.I. No. 44 of 1993 - as amended)

The 1989 Act contains important provisions relating to the safety of chemicals at work and the avoidance of risk to safety and health resulting from the use of chemicals. The Safety Statement (Section 12), the "cornerstone" of the Act, must be based on the identification of hazards (including chemical hazards) at the workplace and an assessment of their risks. As a result of this hazard identification and risk assessment, an appropriate control and preventive strategy must be developed which will ensure the safety and health of employees working with chemicals. The duties imposed by the Act (Section 6) on employers with regard to -

- design, provision and maintenance of safe plant;
- provision of safe systems of work;
- provision of information, instruction, training and supervision
- provision of suitable protective clothing;
- provision of adequate emergency plans

are of major importance in the control of chemical risks, as for other risks in the workplace. The General Application Regulations 1993 give effect in Ireland to the Framework Directive 89/391/EEC and to 6 other Directives covering, minimum health and safety requirements for the workplace, work equipment, VDU's, personal protective equipment (PPE) and manual handling. As with the 1989 Act, these Regulations contain important provisions relating to the safety of chemicals at work, in particular the provisions related to PPE and the accident notification requirements.

(2) Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 (S.I. No. 78 of 2001)

These Regulations transpose the Directive 90/394/EEC, as amended by Directives 97/42/EC and 99/38/EC, relating to prevention of exposure to carcinogens at work and place a responsibility on all employers in whose premises a carcinogen, a mutagen or a carcinogenic process is used to eliminate the risk of adverse health effects, namely cancer, due to exposure to these dangerous chemicals. Category 1 and Category 2 mutagens and carcinogens come under the scope of these Regulations. The Regulations require identification of carcinogens in the workplace, elimination or substitution where practicable, engineering or process control measures, monitoring of the workplace as appropriate, provision of information and training for workers exposed to carcinogens and provision of PPE. Furthermore, duties are placed on employers to carry out health surveillance and to maintain appropriate records.

(3) Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001)

The Chemical Agents Regulations require employers to assess the risk of any chemical agent used at a place of work, to put in place measures to control the risks associated with those chemicals and to provide information and training to workers who are handling chemicals. These Regulations cover all hazardous chemical agents in the workplace. They require specific and preventive measures to be adopted in relation to storage, handling, segregation of chemical agents and, basically, all elements or stages of the 'life-cycle' of that chemical while on site, whether bought-in, generated or produced intentionally or as a by-product during a work activity or process or as residue or waste etc. The Regulations also deal specifically with substances, which are hazardous by virtue of their physico-chemical properties covering unstable substances, inflammable substances and the safety arrangements which must be put in place to deal with these. They provide for additional arrangements to be made in relation to accidents, incidents and emergencies involving hazardous chemical agents at the workplace, specifically the provision of 'Action Plans' to be communicated to both internal and external emergency services.

Furthermore duties are placed on employers to carry out health surveillance where required and to maintain appropriate records. The associated Code of Practice (2002) lays down Occupational Exposure Limit Values for over 700 chemicals used in the workplace. Employers must ensure that the levels of any individual chemical must not exceed the level laid down in the Code of Practice and the exposure levels should be kept as far as possible below those legally set values. A programme of monitoring the workplace air may be necessary to ensure that the Regulations are being complied with. Notwithstanding the possible need to perform monitoring, employers must consider and risk assess all potential points of exposure and determine/develop adequate measures to prevent or reduce and control any exposure which may occur.

(4) Safety, Health and Welfare at Work (Pregnant Employees etc.) Regulations 2000 (S.I. No. 218 of 2000)

The Pregnancy Regulations provide an additional and specific legal basis for protection of the pregnant woman, her foetus or the breast feeding mother and her infant in respect of hazards in the workplace, including certain chemicals which are considered to have the potential to harm the developing foetus or the breast-fed baby. These chemicals include lead and lead derivatives, carbon monoxide, mercury and mercury derivatives and cytotoxic drugs. The Regulations also relate to certain processes and work activities which could have an adverse effect on pregnant women while at work.

(5) Regulations related to Classification, Packaging and Labelling (CPL) of Dangerous Substances and Preparations (S.I. No. 116 of 2003 and S.I No 62 of 2004)

A preparation is a chemical product which contains a mixture of two or more substances. The classification, packaging and labelling (CPL) of dangerous substances and dangerous preparations is regulated by two separate sets of Regulations, namely–

- European Communities (Classification, Packaging, Labelling and Notification of Dangerous Substances) Regulations 2003 (S.I. No. 116 of 2003)
- European Communities (Classification, Packaging and Labelling of Dangerous Preparations) Regulations 2004 (S.I. No. 62 of 2004)

Both sets of Regulations define the intrinsic properties of chemicals, which are based on a knowledge of the toxicological, physico-chemical and eco-toxicological properties of the chemical. Based on these intrinsic properties, the label on any chemical must display information about the chemical reactivity and the health and environmental hazards of the product. The particular danger is illustrated by the use of a hazard symbol and the label also shows “Risk phrases”, which describe the hazard in greater detail, and “Safety phrases”, which give appropriate handling advice to control the hazard.

Under these Regulations, a safety data sheet (SDS) must be made available to any professional user of a dangerous substance or preparation. The SDS contains more detailed information on the chemical product. It must contain the name of the supplier or manufacturer, information about the identity of the substances in the product, their hazards, physical and chemical properties, stability and reactivity, toxicological and ecological information, first aid information, firefighting measures, handling and storage, exposure controls and personal protective equipment, disposal considerations (including accidental release measures) and information on transport.

(6) Regulations relating to the Notification of New Chemical Substances (S.I. No. 116 of 2003)

In addition to regulating the classification, packaging and labelling of substances, the European Communities (Classification, Packaging, Labelling and Notification of Dangerous Substances) Regulations 2003 (S.I. No. 116 of 2003) also regulate the requirements for the notification of new chemical substances to the Health and Safety Authority, thus transposing Directive 67/548/EEC. They require each manufacturer, importer or other person proposing to place any new chemical on the market for the first time to submit to the competent authority a notification dossier containing details of tests to which the substance has been subjected and the proposed classification and labelling of the substance. In addition, the texts of a number of Annexes to the parent Directive are included in the Regulations. These include the list of risk phrases (Annex III) and safety phrases (Annex IV), the criteria for classification and labelling (Annex VI), the requirements of the technical dossier for notification of new substances (Annex VIIA-D, Annex VIII) and the requirements for child resistant fastening (Annex IX). Annex I is not included in the Regulations but can be accessed in database format on the website of the European Chemicals Bureau (See below). These Regulations revoke S.I. No. 393 of 2000 to incorporate the changes introduced by the 28th adaptation to technical progress (ATP) to Directive 67/548/EC. The changes include introduction of the new risk phrase R68 (Category 3 mutagens) and details of the reduced notification test package for intermediates with limited exposure.

(7) Regulations relating to the Marketing and Use of Dangerous Substances and Preparations (S.I. No. 220 of 2003 and S.I. No. 503 of 2003)

The European Communities (Dangerous Substances and Preparations)(Marketing and Use) Regulations 2003 (S.I. No. 220 of 2003) and the European Communities (Dangerous Substances and Preparations)(Marketing and Use)(Amendment) Regulations 2003 (S.I. No. 503 of 2003) transpose Council Directive 76/769/EEC and various amending Directives. They lay down the restrictions and conditions which must be observed in the marketing and use of substances and preparations listed in the Schedules to the Regulations. These include listed substances which are classified as carcinogenic, mutagenic and toxic to reproduction. These substances cannot be placed on the market for sale to the general public outside of set concentration limits and must be labelled “restricted to professional users”. In addition, the Regulations place restrictions on specified nickel products (mainly those which come in contact with skin) and prohibit the placing on the market or use of all type of asbestos or asbestos-containing materials or products, including chrysotile (white asbestos).

(8) European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations, (S.I. No. 476 of 2000 and S.I. No. 402 of 2003) (Seveso 2 Directive)

The European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2000 (S.I. No. 476 of 2000) as amended by the European Communities (Control of Major Accident Hazards Involving Dangerous Substances)(Amendment) Regulations 2003 (S.I. No. 402 of 2003) apply to establishments where dangerous substances are present in amounts equal to or exceeding the application thresholds. Operators of establishments are required to take all necessary measures to prevent the occurrence of major accidents and to limit the consequences of accidents for people and the environment. The Regulations impose duties in respect of safety management systems, preparation of safety reports and emergency preparedness. The Regulations also deal with the provision of advice on major hazards in the context of land-use planning decisions. Seveso-related land-use planning requirements are outlined in the Planning and Development Regulations 2001 (S.I. No. 600 of 2001).

(9a) European Communities (Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres) Regulations 1999 (S.I. No. 83 of 1999) (ATEX Directive)

These Regulations transpose Council Directive 94/9/EC on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres. They apply to equipment, protective systems, devices and components intended for use in potentially explosive atmospheres and going on the market for the first time after 1 March 1996. The Regulations require compliance with the essential health and safety requirements and the affixing of the CE marking. The CE marking can only be affixed if the equipment has undergone the appropriate conformity assessment procedure and in respect of which an EC declaration of Conformity has been drawn up.

(9b) Safety, Health and Welfare at Work (Explosive Atmospheres) Regulations 2003 (S.I. No. 258 of 2003)

These Regulations apply to a workplace where workers are potentially at risk from an explosive atmosphere.

(10) Safety, Health and Welfare at Work (Confined Spaces) Regulations 2001 (S.I. No. 218 of 2001)

The Regulations are aimed at all workplaces which have confined spaces. The sectors involved include industry, construction, agriculture and Local Authorities. The thrust of the Regulations is to bring working in confined spaces into line with the modern approach to safety management. This means that a range of control measures, including emergency procedures, must be identified and implemented based on a thorough and rigorous assessment of the risks. The Regulations incorporate a broad definition of confined space that is intended to reflect the true nature of the confined space hazard. Responsibilities are placed on employers, self-employed and others, who are in control of the work and the workplace, to implement the necessary measures to ensure safe working in confined spaces. The main duties are to prevent the need for entry to confined spaces where practicable and, where this is not practicable, to -

- (i) carry out an assessment of the risks involved,
- (ii) implement a safe system of work, and
- (iii) make adequate and sufficient emergency arrangements.

Where control of work is shared between a number of employers or self-employed, those employees or self-employed must liaise and co-operate with each other. The Regulations are supported by a Code of Practice issued under Section 30 of the Safety, Health and Welfare at Work Act 1989 which gives detailed guidance on how to comply with the Regulations.

(11) Carriage of Dangerous Goods by Road Regulations 2004 (S.I. No. 29 of 2004)

The Carriage of Dangerous Goods by Road Regulations 2004 (S.I. No. 29 of 2004) apply to the carriage, both in bulk and in packages, of dangerous goods by road; including the loading and unloading of the dangerous goods in relation to their carriage. They impose duties on the consignor and the carrier of the dangerous goods and also on the driver of the vehicle carrying those goods. They contain requirements for the vehicles, tanks, tank containers, receptacles and packages containing the dangerous goods during their carriage. They require that the drivers and others, involved in the carriage of the dangerous goods by road (including their loading and unloading), are adequately trained and, in the case of drivers, hold certificates of such training.

(12) European Communities (Safety Advisers for the Transport of Dangerous Goods by Road and Rail) Regulations 2001 (S.I. No. 6 of 2001)

The European Communities (Safety Advisers for the Transport of Dangerous Goods by Road and Rail) Regulations 2001 (S.I. No. 6 of 2001) came into force on 17 January 2001. The Regulations transpose Directives 96/35/EC and 2000/18/EC on the appointment of, and minimum examination requirements for, safety advisers for the

transport of dangerous goods by road and rail. The Regulations prohibit the transport of dangerous goods by road or rail by an undertaking unless it has appointed a safety adviser. In this context “transport of dangerous goods” includes those who load, transport or unload dangerous goods with some exceptions inclusive of undertakings at the final delivery destination (e.g. supermarkets or petrol stations) The safety adviser is required to fulfil specified functions, including advising the undertaking which appointed him or her as to safety, health and environmental matters in connection with the transport of dangerous goods and the preparation of necessary reports. A safety adviser cannot be appointed unless he or she holds a vocational training certificate appropriate to the modes of transport used by the undertaking and to all dangerous goods or one or more of the groups of dangerous goods specified and transported by the undertaking. Mutual recognition of vocational training certificates issued in other member States of the European Union or in Northern Ireland is provided for. The certificate examinations are subject to the approval of the nominated competent authorities that arrange for the issue of the vocational training certificates.

(13) European Communities (Export and Import of Certain Dangerous Chemicals)(Industrial Chemicals)(Enforcement) Regulation 2002 (S.I. No. 395 of 2002)

These Regulations serve to implement the enforcement provisions of Regulation (EEC) No 2455/92 as amended by Regulation (EC)3135/94 for those industrial chemicals which are covered by the Regulation. The Enforcement Regulations introduce necessary enforcement powers and make provision for the penalties that may be applied by the courts in the event of infringements. The Health and Safety Authority is the designated national authority for the purposes of the Regulations. Separate Regulations have been made by the Minister for Agriculture implementing the enforcement provisions of Regulation (EEC) No 2455/92 and associated Regulations for pesticides covered by the Regulation.

The EU Regulations provide for the control of trade in certain dangerous chemicals which are banned or severely restricted because of their affect on health and the environment. The primary aim is to control the supply of such chemicals to third world countries. The Regulations provide, inter alia, for notification by an exporter, in a standardised format to a designated national authority, of the intent to export any one of the chemicals banned or severely restricted in the EU. The designated national authority must then ensure that the authorities in the country of destination receive notification of the intended export, and a copy of the notification is sent to the European Commission and to the International Register of Potentially Toxic Chemicals. The Commission must assign a reference number of each notification received, and further exports of that chemical must be identified by that reference number.

Annex I Useful Websites

1. **Major Accidents Hazards Bureau (Seveso 2):** <http://mahbsrv.jrc.it>
2. **European Chemicals Bureau:** <http://ecb.jrc.it/>
3. **Annex I (To search classification and labelling of a substance):**
<http://ecb.jrc.it/classification-labelling/>
4. **List of chemicals classified as carcinogens/mutagens/toxic to reproduction:**
<http://ecb.jrc.it/classification-labelling/> (Documents/ The classification and labelling of Carcinogenic, Mutagenic, Reprotoxic and Sensitising substances)
5. **Transport of Dangerous Goods Information Note:**
http://www.hsa.ie/safety/chemical_awareness/dgsa.htm

Annex II Legislation on chemicals enforced by the Health and Safety Authority

Current status

Classification, Packaging, Labelling and Notification & Safety Data Sheets

1. European Communities (Classification, Packaging, Labelling and Notification of Dangerous Substances) Regulations 2003 (S.I. No. 116 of 2003)
2. European Communities (Classification, Packaging, Labelling and Notification of Dangerous Preparations Regulations 2004 (S.I. No. 62 of 2004)

Existing Substances:

Regulation (EEC) 793/93

Import/Export

1. European Communities (Export and Import of Certain Dangerous Chemicals)(Industrial Chemicals)(Enforcement) Regulation 2002 (S.I. No. 395 of 2002)
2. Regulation (EC) No. 304/2003

Worker Protection

1. Safety, Health and Welfare at Work Act 1989 (No. 7 of 1989)
2. Safety, Health and Welfare at Work (General Application) Regulations 1993 (S.I. No. 44 of 1993)
3. Safety, Health and Welfare at Work (General Application)(Amendment) Regulations 2001 (S.I. No. 188 of 2001)

4. Safety, Health and Welfare at Work (General Application)(Amendment No. 2) Regulations 2003 (S.I. No. 53 of 2003)
5. Safety, Health and Welfare at Work (Miscellaneous Welfare Provisions)) Regulations 1995 (S.I. No. 358 of 1995)
6. European Communities (Protection of Workers)(Exposure to Asbestos) Regulations 1989 (S.I. No. 34 of 1989)
7. European Communities (Protection of Workers)(Exposure to Asbestos) (Amendment) Regulations 1993 (S.I. No. 276 of 1993)
8. European Communities (Protection of Workers)(Exposure to Asbestos) (Amendment) Regulations 2000 (S.I. No. 74 of 2000)
9. Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 (S.I. No. 78 of 2001)
10. Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001)
11. 2002 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001
12. Safety, Health and Welfare at Work (Pregnant Employees etc.) Regulations 2000 (S.I. No. 218 of 2000)
13. Safety, Health and Welfare at Work (Confined Space) Regulations 2001 (S.I. No. 218 of 2001)

Marketing & Use of Dangerous Substances and Preparations

1. European Communities (Dangerous Substances and Preparations)(Marketing and Use) Regulations 2003 (S.I. No. 220 of 2003)
2. European Communities (Dangerous Substances and Preparations)(Marketing and Use)(Amendment) Regulations 2003 (S.I. No. 503 of 2003)

Transport of Dangerous Goods

1. Dangerous Substances Act 1972 (No. 10 of 1972)
2. Carriage of Dangerous Goods by Road Act 1998 (No. 43 of 1998)
3. Carriage of Dangerous Goods by Road Act, 1998 (Commencement) Order 2001 (S.I. No.495 of 2001)
4. Carriage of Dangerous Goods by Road Regulations 2004 (S.I. No. 29 of 2004)
5. European Communities (Safety Advisers for the Transport of Dangerous Goods by Road and Rail) Regulations 2001 (S.I. No. 6 of 2001)

Storage of Dangerous Substances (see also Major Accident Hazards below)

1. Safety in Industry Acts 1955 and 1980 (No. 10 of 1955 and No. 9 of 1980)
2. Dangerous Substances Act 1972 (No. 10 of 1972)
3. Dangerous Substances (Retail and Private Petroleum Stores) Regulations 1979 (S.I. No. 311 of 1979)
4. Dangerous Substances (Retail and Private Petroleum Stores)(Amendment) Regulations 1988 (S.I. No. 303 of 1988)
5. Dangerous Substances (Retail and Private Petroleum Stores)(Amendment) Regulations 1999 (S.I. No. 424 of 1999)
6. Dangerous Substances (Oil Jetties) Regulations 1979 (S.I. No. 312 of 1979)
7. Dangerous Substances (Petroleum Bulk Stores) Regulations 1979 (S.I. No. 313 of 1979)
8. Dangerous Substances (Storage of Liquified Petroleum Gas) Regulations 1990 (S.I. No. 201 of 1990)
9. Dangerous Substances (Retail and Private Petroleum Stores)(Amendment) Regulations 2001 (S.I. No. 584 of 2001)
10. Dangerous Substances (Retail and Private Petroleum Stores)(Amendment) Regulations 2002 (S.I. No. 624 of 2002)

Major Accident Hazards

1. European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2000 (S.I. No. 476 of 2000)
2. European Communities (Control of Major Accident Hazards involving Dangerous Substances)(Amendment) Regulations 2003 (S.I. No. 402 of 2003)

Chemical Weapons

1. Chemical Weapons Act 1997 (No. 28 of 1997)
2. Chemical Weapons (Licensing of Scheduled Toxic Chemicals and Precursors) Regulations 2001 (S.I. No. 54 of 2001)

Explosives Atmospheres (ATEX)

1. European Communities (Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres) Regulations 1999 (S.I. No. 83 of 2003)
2. Safety, Health and Welfare at Work (Explosive Atmospheres) Regulations 2003 (S.I. No 258 of 2003)