

# Management of Hazardous Substances

Practical support based on an overview  
of European legislation

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## Practical support based on an overview of European legislation

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# Preface



In an increasingly global economy, the overview of national regulations is of great importance for internationally operating enterprises. In Europe, the legal framework is set by directives and regulations. The specific formulation in the respective national implementations is of considerable importance for the manufacture, use and placing on the market of chemicals in the cross-border movement of goods.

This paper presents the consequences of legislation on the handling of hazardous substances with the focus on health protection in the workplace.

Starting from the European legal framework for the handling of hazardous substances in the workplace, the respective national legal implementations in Austria, France, Germany, Italy, and Spain are presented. The most important laws, regulations, and rules are briefly outlined. Subsequently, national practical aids for the implementation in the enterprises are presented with the corresponding links.

With this overview, the ISSA Chemistry Section provides those responsible for occupational safety and health, as well as all those involved in this process, with an insight beyond their own country to support them in applying the provisions.



**Thomas Köhler**  
President of the ISSA Section  
on Prevention in the Chemical  
Industry



# 1 EU legal framework

In this chapter the framework of European legislation for manufacturing, placing on the market and handling substances and mixtures is summarized, dividing into regulations and directives.

**Regulations** are obligatory when they are published and must be immediately adopted in the EU member states without any changes. The most important regulations concerning the placing on the market of substances and mixtures are listed in table 1 together with a short abstract of the regulation. Some of these have important interfaces with the occupational safety and health (OSH) legislation.

**Directives** are obligatory, but governments must implement them into own national laws. Some of the most important directives concerning occupational safety and health are listed in table 2. A summary of each directive is in the first part of the document. The national implementations of all these directives as well as some national tools for practical support are listed in chapters 2.1 to 2.5.

The main addressee of the hazardous substances' legislation for the handling of substances and mixtures is the employer. Employees' obligations are to be found in the OSH Framework Directive 89/391/EEC.

The addressee of the legislation concerning the placing on the market of substances and mixtures is the supplier (manufacturer, importer, downstream user, or distributor).





## 1.1. Regulations

Please note that consolidated versions of the regulations may be available.

Title	Abstract
<b>REACH-Regulation</b> <a href="#">Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals [...]</a>	<a href="#">REACH Regulation aims to improve the protection of human health and the environment from the risks that can be posed by chemicals.</a>
<b>CLP-Regulation</b> <a href="#">Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures [...]</a>	<a href="#">The CLP Regulation ensures that the hazards presented by chemicals are clearly communicated to workers and consumers in the EU through classification and labelling of chemicals.</a>
<b>Biocidal Products Regulation</b> <a href="#">Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products</a>	<a href="#">The BPR aims to improve the functioning of the biocidal products market in the EU, while ensuring a high level of protection for humans and the environment.</a>
<b>POP-Regulation</b> <a href="#">Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants [...]</a>	<a href="#">The POPs Regulation bans or severely restricts the production and use of persistent organic pollutants in the European Union.</a>

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In addition, main regulations of the European plant protection legislation are mentioned too.

Title	Abstract
<a href="#">Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market [...]</a>	This fundamental regulation regulates the approval of active substances and establishes the rules governing the authorization of plant protection products presented in commercial form, as well as their placing on the market, use, and control within the Community.
<a href="#">Commission Regulation (EU) No 283/2013 of 1 March 2013 setting out the data requirements for active substances [...]</a>	This regulation covers the data requirements for the evaluation of active substances to be used in plant protection products in accordance with Regulation (EC) No. 1107/2009.
<a href="#">Commission Regulation (EU) No 284/2013 of 1 March 2013 setting out the data requirements for plant protection products [...]</a>	This regulation establishes the data requirements applicable to plant protection products, in accordance with Regulation (EC) No. 1107/2009.

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## 1.2. Directives

Title	See chapter	
<b>OSH Framework Directive</b> <a href="#">Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work</a>	1.2.1 2.1.1 2.2.1 2.3.1 2.4.1 2.5.1	<b>ATEX Directive</b> <a href="#">Directive 1999/92/EC of the European Parliament and of the Council of 16 December 1999 on minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres (15<sup>th</sup> individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)</a> 1.2.5 2.1.5 2.2.5 2.3.5 2.4.5 2.5.5
<b>Chemical Agents Directive (CAD)</b> <a href="#">Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC)</a>	1.2.2 2.1.2 2.2.2 2.3.2 2.4.2 2.5.2	<b>Directive on maternity leave / Breastfeeding and Pregnant Workers Directive</b> <a href="#">Council Directive 92/85/EEC of 19 October 1992 on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding (tenth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC)</a> 1.2.6 2.1.6 2.2.6 2.3.6 2.4.6 2.5.6
<b>Carcinogens and Mutagens Directive (CMD)</b> <a href="#">Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work (Sixth individual Directive within the meaning of Article 16(1) of Council Directive 89/391/EEC)</a>  <b>The CMD was amended on March 9, 2022, as Carcinogens, Mutagens and Reprotoxic Substances Directive (CMRD)</b> <a href="#">Directive (EU) 2022/431 of the European Parliament and of the Council of 9 March 2022 amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work</a>	1.2.3 2.1.3 2.2.3 2.3.3 2.4.3 2.5.3	<b>Seveso-Directive</b> <a href="#">Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC</a> 1.2.7 2.1.7 2.2.7 2.3.7 2.4.7 2.5.7
<b>Asbestos Directive</b> <a href="#">Directive 2009/148/EC of the European Parliament and of the Council of 30 November 2009 on the protection of workers from the risks related to exposure to asbestos at work</a>	1.2.4 2.1.4 2.2.4 2.3.4 2.4.4 2.5.4	In addition, the main directive of the European plant protection legislation is mentioned too.

Title	Abstract
Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides	This Directive establishes a "framework for Community action for the sustainable use of pesticides". For the implementation of this Directive, National Action Plans (NAPs) have been defined to establish the objectives, measures, timetables, and indicators for the reduction of risks and impacts deriving from the use of plant protection products.



### 1.2.1. Directive 89/391/EEC (OSH Framework Directive)

#### Scope

This directive defines minimum requirements for encouraging improvements, especially in the working environment, to guarantee a better level of safety and health protection of workers and for harmonizing conditions while maintaining the improvements already achieved.

Based on this framework directive, more specific directives covering all the risks connected with safety and health at the workplace have been adopted by the EU Commission. These individual directives concern risks such as those arising from chemical agents, carcinogens and mutagens, biological agents, explosives, atmosphere or physical agents (noise, vibration, electromagnetic fields). Other directives lay down minimum safety and health requirements for the workplace, for the use of work equipment, for the provision of safety and/or health signs or for the introduction of special measures for pregnant workers and workers who have recently given birth or are breastfeeding.

This directive contains general principles concerning the prevention of occupational risks, the protection of safety and health, the elimination of risk and accident factors, the informing, consultation, balanced participation in accordance with national laws and/or practices and training of workers and their representatives. It shall apply to all sectors of activity, both public and private (e. g. industrial, agricultural, commercial, administrative, service, educational, cultural, leisure).

#### Employers' obligations

The employer shall

- ensure the workers' safety and health in every aspect related to the work.
- take the measures necessary for the safety and health protection of workers, including prevention of occupational risks and provision of information and training, as well as provision of the necessary organization and means.
- implement the measures based on general principles of prevention, such as avoiding risks; evaluating the risks which cannot be avoided; combating the risks at their origin; eliminating or reducing risk factors; giving collective protective measures priority over individual protective measures; giving appropriate instructions to the workers etc.
- assess the risks to the workers' safety and health, among others in the choice of work equipment, the chemical substances or mixtures used, and the fitting-out of workplaces.

Furthermore, the employer shall, for example

- designate one or more workers or competent external services or persons to carry out activities related to the protection and prevention of occupational risks.
- take the necessary measures for first aid, firefighting and evacuation of workers, this also includes to inform as soon as possible all workers who are, or may be, exposed to serious and imminent danger of the risk involved and of the steps taken or to be taken as regards protection.
- inform workers and/or their representatives e. g. about the safety and health risks and protective and preventive measures and activities in general and for the individual types of workplaces and/or jobs.

- draw-up the following documents (Member States shall define these obligations considering the nature of the activities and size of the companies):
  - an assessment of the risks to safety and health at work, including those facing groups of workers exposed to particular risks,
  - a list of occupational accidents resulting in a worker being unfit for work for more than three working days,
  - reports for the responsible authorities on occupational accidents suffered by the employer's workers.
- consult workers and/or their representatives and allow them to take part in discussions on all questions relating to safety and health at work. This obligation includes e. g. that employers must allow workers' representatives with specific responsibility for the safety and health of workers adequate time off work, without loss of pay, and provide them with the necessary means to enable such representatives to exercise their rights and functions deriving from this directive.
- ensure that each worker receives adequate safety and health training in particular in the form of information and instructions specific to his or her workplace or job.

**Health surveillance** shall be introduced in accordance with national law and/or practices. These measures shall guarantee that each worker, if she or he wishes, may receive health surveillance at regular intervals. Particularly sensitive risk groups must be protected against the dangers which specifically affect them.

#### Employees' obligations

Each worker shall take care as far as possible of his or her own safety and health and that of other persons affected by his or her acts or omissions at work.

In accordance with their training and the instructions given by their employer, the workers shall

- properly use machinery, devices, tools, hazardous substances, means of transport and other means of production.
- properly use the provided personal protective equipment and, after its use, store it at its proper place.
- refrain from disconnecting, changing, or removing arbitrarily protective devices on machinery, devices, tools, plant, and buildings, and use such protective devices correctly.
- immediately inform the employer and/or the workers with specific responsibility for the safety and health of workers
  - about any serious and immediate danger, they have detected and
  - about any shortcomings of the protective systems, they have detected.
- cooperate, in accordance with national practice, with the employer and/or workers with specific responsibility for the safety and health of workers, as long as necessary to enable
  - any tasks or requirements prescribed by the competent authority to protect the safety and health of workers at work to be carried out,
  - the employer to ensure that the working environment and working conditions are safe and pose no risk to safety and health within the workers' field of activity.



## 1.2.2. Directive 98/24/EC (Chemical Agents Directive, CAD)

### Scope

This Directive lays down minimum requirements for the protection of workers from risks to their safety and health arising, or likely to arise, from the effects of chemical agents that are present at the workplace or as a result of any work activity involving chemical agents. The Directive includes the central duties to be met by the employer in order to determine and assess these risks as well to prevent them.

For carcinogens and mutagens at work the provisions of this Directive shall apply without prejudice to more stringent and/or specific provisions contained in the Carcinogens and Mutagens Directive.

With this Directive a Community level for the protection of workers from chemical risks in form of indicative and binding occupational exposure limit value shall be set.

For any chemical agent for which an indicative occupational exposure limit value is established at Community level, Member States shall establish a national occupational exposure limit value, taking into account the Community limit value. For any chemical agent for which a binding occupational exposure or a binding, biological limit value is established, Member States shall establish a corresponding national binding occupational exposure or biological value based on, but not exceeding, the Community limit value.

- Annex I: Binding Occupational exposure limit value: Inorganic lead and its compounds,
- Annex II: Binding Biological Limit Values and Health Surveillance: Lead and its ionic compounds,
- Annex III: Prohibitions.

Indicative limit values are published in the following Directives:

- Commission Directive 91/322/EEC,
- Commission Directive 2000/39/EC,
- Commission Directive 2006/15/EC,
- Commission Directive 2009/161/EU,
- Commission Directive 2017/164/EU,
- Commission Directive 2019/1831/EU.

Member States shall introduce arrangements for carrying out appropriate health surveillance of workers for whom the results of the risk assessment reveal a risk to health. These arrangements, including the requirements specified for health and exposure records and their availability, shall be introduced in accordance with national laws and/or practice.

### Employers' obligations

#### - Risk assessment and prevention of risks

The employer shall

- first determine whether any hazardous chemical agents are present at the workplace. In this case he or she must assess any risk to the safety and health of workers caused by health hazards as well as physical hazards (e. g. the potential to cause fire and explosion) of hazardous chemical agents.
- document the risk assessment and the measures taken in a suitable form according to national law. The risk assessment shall be kept up-to-date, particularly if there have been significant changes which could render it out-of-date, or when the results of health surveillance show it to be necessary.

The employer shall take the necessary preventive measures in order to eliminate risks involving hazardous chemical agents. If this is not possible by substitution, the risk is reduced to a minimum including the following order of priority:

1. design of appropriate work processes and engineering controls and use of adequate equipment and materials, so as to avoid or minimize the release of hazardous chemical agents;
2. application of collective protection measures at the source of the risk, such as adequate ventilation and appropriate organizational measures, the latter by
  - reducing to a minimum the number of workers exposed,
  - reducing to a minimum the duration and intensity of exposure,
  - appropriate hygiene measures (e. g. regular cleaning of floors, walls and other surfaces),
  - reducing the quantity of chemical agents present at the workplace to the minimum required for the type of work concerned;
3. where exposure cannot be prevented by other means, application of individual protection measures including personal protective equipment.

#### - Compliance with the occupational exposure limit values

Unless the employer clearly demonstrates by other means of evaluation adequate prevention and protection have been achieved, he or she shall carry out regularly measurements of chemical agents in particular in relation to the occupational exposure limit values.

In any event, where an occupational exposure limit value has been exceeded, the employer shall immediately take steps to remedy the situation by carrying out preventive and protective measures.

#### - Accidents, incidents and emergencies

The employer shall, in order to protect the safety and health of workers from an accident, incident or emergency, establish procedures (action plans) including any relevant safety drills which are to be performed at regular intervals, and the provision of appropriate first aid facilities.

#### - Information and training for workers

The employer shall ensure that workers and/or their representatives are provided with:

- the emergency arrangements;
  - the results of the risk assessment and the access to any safety data sheet.
- This may vary from oral communication to individual instruction and training supported by information in writing, depending on the nature and degree of the risk revealed by the assessment;
- training and information on appropriate precautions and actions to be taken in order to safeguard themselves and other workers at the workplace. The training shall be adapted to take account of new or changed risks and repeated periodically if necessary.

The employer shall ensure that the contents of the containers and pipes, together with the nature of those contents and any associated hazards, are clearly identifiable.

#### - Health surveillance

Health surveillance shall be appropriate where:

- the exposure of the worker to a hazardous chemical agent is such that an identifiable disease or adverse health effect may be related to the exposure, and
- there is a likelihood that the disease or effect may occur under the particular conditions of the worker's work, and
- the technique of investigation is of low risk to workers.

The duties of the employer and of a doctor or occupational health-care professional are described.

### Information and training tools of ISSA Chemistry Section:

[Ready to use hazardous substances? Important steps to handle such chemicals safely \(brochure\)](#), [Labeling hazardous substances \(video\)](#), [ISSA-10e](#)

[Handling hazardous substances \(Training tool for safety instructions\)](#), [ISSA-101e](#)

[Storage of chemicals: Guidelines for good practice \(brochure and video\)](#), [ISSA-11e](#)

[Storage of chemicals \(Training tool for safety instructions\)](#), [ISSA-102e](#)

[Handling hazardous substances: occupational hygiene measures \(Training tool for safety instructions\)](#), [ISSA-109e](#)



### 1.2.3. Directive 2004/37/EC Carcinogens and Mutagens Directive (CMD)

The CMD was amended on March 9, 2022, as Carcinogens, Mutagens and Reprotoxic Substances Directive (CMRD) with the "Directive (EU) 2022/431 of the European Parliament and of the Council of 9 March 2022 amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work"

#### Scope

The aim of this Directive is to provide a framework for the protection of workers against risks related to occupational exposure to carcinogens and mutagens and set out occupational exposure limit values. The scope was extended to reprotoxic substances with an amendment in March 2022 by the Directive (EU) 2022/431. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 5 April 2024. In practice, several European Union Member States including France already apply these provisions to carcinogens, mutagens and reprotoxic substances now.

This Directive does not apply to workers exposed to radiation covered by the Euratom Treaty. It also does not apply to workers exposed to asbestos unless the provisions of this Directive are more favourable to their health and safety at the workplace than those of Directive 2009/148/EC (Protection of workers from exposure to asbestos at work).

#### Employers' obligations

The following text only lists duties and measures that are additional to those of the CAD.

The obligations regarding reprotoxic substances were only added with the amending directive in March 2022 and are only applicable after transposition into national law.

#### Reduction and replacement

Employers must reduce the use of carcinogens, mutagens and reprotoxic substances, particularly by replacing them, insofar as is technically possible, by substances, mixtures or processes that are not dangerous or less dangerous.

#### - Measures aimed at preventing or reducing exposure

Where the results of the assessment reveal a risk concerning the safety or health of workers, workers' exposure must be prevented particularly by replacing the carcinogen, mutagen or reprotoxic substance. If replacement is not possible, employers must ensure that the process is, in so far as is technically possible, performed in a closed system. Where a closed system is not technically possible, employers shall ensure that the level of exposure of workers to the carcinogen, mutagen or non-threshold reprotoxic substance is reduced to as low a level as is technically possible. Where it is not technically possible to use or manufacture a threshold reprotoxic substance in a closed system, the employer shall ensure that the risk related to the exposure of workers to that threshold reprotoxic substance is reduced to a minimum.

Exposure must not exceed the limit value of the mutagen, carcinogen or reprotoxic substances in question specified in Annex III. This Annex is continuously supplemented with further limit values by new Directives.

In any event, when a carcinogen, mutagen or reprotoxic substance is used at the workplace, the employer must:

- Use appropriate measurement procedures (particularly for the early detection of abnormal exposures resulting from an unforeseeable event or an accident);
- Demarcate risk areas and use safety and warning signs (including "No smoking" signs);
- Use sealed, clearly and visibly labelled containers for storage, handling, transportation, and disposal of waste.

#### - Information to be provided to the competent authority

Where the results of the assessment reveal a risk to workers' health or safety, employers must make a certain amount of information available to the competent authority when so requested: type of activity, quantities used, number of workers exposed, prevention measures introduced.

#### - In the event of unforeseeable exposure

Employers must inform workers in the event of abnormal exposure. Only those workers who are essential to carry out repair work are permitted in the affected area, and must have suitable individual protection (protective clothing, respiratory protection equipment, for example). Exposure must not be permanent and must be kept to the strict minimum.

#### - In the event of foreseeable exposure

Where there is a foreseeable risk of a significant increase in workers' exposure, such as for maintenance activities, employers must determine, after consultation of the workers concerned, the measures that will be taken to minimise exposure and ensure their protection during these activities.

#### - Access to risk areas

Where there are areas that present a risk to the health and safety of workers, these areas must be accessible only to workers who, by reason of their work or duties, are required to enter them.

#### - Hygiene and individual protection measures

Employers must, in the case of all activities for which there is a risk of contamination by carcinogens, mutagens or reprotoxic substances, take the following measures:

- Forbid eating, drinking and smoking in working areas;
- Provide workers with appropriate protective clothing;
- Provide separate storage places for working clothing and for street clothes;
- Provide workers with washing and toilet facilities;
- Properly store individual protective equipment in a well-defined place; check and clean it if possible before, and in any case after each use;
- Repair or replace defective protective equipment before further use.

Workers must not be charged for the cost of these measures.

#### - Information and training of workers (see also 1.2.2. CAD)

The amending Directive (EU) 2022/431 has added the following and thus highlighted obligations concerning "hazardous medicinal products". The training shall be:

- adapted to take account of new or changed risks, in particular when workers are or are likely to be exposed to new carcinogens, mutagens or reprotoxic substances or to a number of different carcinogens, mutagens or reprotoxic substances, including those contained in hazardous medicinal products, or in case of changing circumstances related to work,
- provided periodically in healthcare settings to all workers who are exposed to carcinogens, mutagens or reprotoxic substances, in particular where new hazardous medicinal products containing those substances are used, and
- repeated periodically in other settings if necessary.

Employers must inform workers of installations and containers containing carcinogens, mutagens or reprotoxic substances, ensure that they are all labelled clearly and legibly, and visibly indicate hazard areas with warning signs. Employers must inform workers as quickly as possible of abnormal exposure.

#### Miscellaneous provisions

##### - Health surveillance

- European Union Member States must establish arrangements nationally for carrying out health surveillance of workers at risk prior to exposure, at regular intervals thereafter and even after the end of exposure, if this is requested by the doctor or authority responsible for the health surveillance of workers. Practical recommendations for the health surveillance of workers are given in Annex II.
- If a worker is found to be suffering from an abnormality which is suspected to be the result of exposure to carcinogens, mutagens or reprotoxic substances, or if a biological limit value is found to have been exceeded, the doctor may require other workers who have been similarly exposed to undergo health surveillance and the risk must be reassessed.



- In cases where health surveillance is carried out, an individual medical record must be kept. Information and advice must be given to workers regarding any health surveillance which they may undergo following the end of exposure. Biological monitoring and related requirements may form part of health surveillance.
- Workers must have access to the results of the health surveillance which concern them. The workers concerned or the employer may request a review of the results of the health surveillance.
- All cases of cancer, adverse effects on sexual function and fertility in adult male and female workers or developmental toxicity in their offspring identified as resulting from occupational exposure to a carcinogen, mutagen or reprotoxic substance shall be notified to the competent authority.

#### - Record-keeping

- The employer keeps an up-to-date list of workers engaged in the activities in respect of which the results of the assessment reveal a risk to workers' health or safety, indicating, if the information is available, the exposure to which they have been subjected. This list as well as the medical record must be kept for at least 40 years following the end of exposure and shall be made available to the responsible authority in cases where the undertaking ceases activity, in accordance with national laws and/or practice. With the amending Directive (EU) 2022/431 this obligation was extended to include such activities involving reprotoxic substances. With regard to reprotoxic substances, the list as well as the medical record shall be kept for at least five years following the end of exposure.
- The employer must give specific access to these data to authorised persons (doctors, competent authorities and other persons who have responsibility for health and safety at work) and each worker has access to the information on the list which relates to him or her personally.

#### Annex I: List of substances, mixtures, and processes

- Manufacture of auramine
- Work involving exposure to polycyclic aromatic hydrocarbons present in coal soot, coal tar or coal pitch
- Work involving exposure to dusts, fumes and sprays produced during the roasting and electro-refining of cupro-nickel mattes
- Strong acid process in the manufacture of isopropyl alcohol
- Work involving exposure to hardwood dusts
- Work involving exposure to respirable crystalline silica dust generated by a work process
- Work involving dermal exposure to mineral oils that have been used before in internal combustion engines to lubricate and cool the moving parts within the engine
- Work involving exposure to diesel engine exhaust emissions

**Annex II:** Practical recommendations for the health surveillance of workers. In the light of the possible regulatory developments, it is preferable to refer directly to the Directive to obtain these practical recommendations.

**Annex III:** Limit values of mutagens, carcinogens or reprotoxic substances. To obtain these values, it is recommended to refer to the Directive itself, as it may be modified quite regularly.

With the amending Directive (EU) 2022/431, **Annex IIIa** was added: Biological Limit Values and Health Surveillance Measures for Lead and its ionic compounds.

#### 1.2.4. Directive 2009/148/EC (Asbestos Directive)

##### Scope

- Protection of workers against risks to their health, arising or likely to arise from exposure to asbestos at work.
- Shall be applied to activities in which workers are or may be exposed in the course of their work to dust arising from asbestos or materials containing asbestos.
- Valid for: asbestos actinolite, CAS No 77536-66-4, asbestos grunerite (amosite), CAS No 12172-73-5, asbestos anthophyllite, CAS No 77536-67-5, chrysotile, CAS No 12001-29-5, crocidolite, CAS No 12001-28-4, asbestos tremolite, CAS No 77536-68-6.
- For the purpose of measuring asbestos in the air only fibres with a length of more than 5 micrometres, a breadth of less than 3 micrometres and a length/breadth ratio greater than 3:1 shall be taken into consideration.
- Provisions limited to a minimum in order not to impose an unnecessary burden on the creation and development of small and medium-sized enterprises.
- Not to prejudice the right of Member States to apply or introduce laws, regulations or administrative provisions ensuring greater protection for workers, in particular as regards the replacement of asbestos by less dangerous substitutes.

##### General obligations

- Prohibition of the application of asbestos by means of the spraying process and working procedures that involve using low-density (less than 1 g/cm<sup>3</sup>) insulating or soundproofing materials which contain asbestos.
- Prohibition of marketing and use of asbestos, activities which expose workers to asbestos fibres during the extraction of asbestos or the manufacture and processing of asbestos products or the manufacture and processing of products containing intentionally added asbestos.
- Exception of prohibition: Treatment and disposal of products resulting from demolition and asbestos removal.
- Laying down the limit values for exposure: Limit Value: 0,1 fibres per cm<sup>3</sup> as an 8-hour time-weighted average (TWA).

#### Employers' obligations

- Notification of all work at the responsible authority before work commences.
- Providing evidence of the firm's ability in working with asbestos.
- Identifying asbestos-containing material.
- Assessing of risk in case of any activity likely to involve a risk of exposure to dust arising from asbestos or materials containing asbestos.
- Drawing a detailed plan of work describing the working techniques and safety measures according to the TOP-principle.
- Avoiding the release of asbestos dust in the air by using suitable working techniques and processes.
- Preventing spreading of dust outside the working area.
- Putting up warning signs.
- Collecting, storing, and transporting asbestos-containing material in suitable sealed and labelled packing and removing from workplace as soon as possible.
- Reducing exposure to a minimum in all cases below the limit value.
- Measurement of asbestos fibres in the air using representative air sampling, suitable analysis methods and suitably qualified personnel.
- Issuing workers with suitable respiratory and other personal protective equipment.
- Verifying the absence of asbestos exposure risk when work is completed.
- Continuing work only when adequate measures have been taken for the protection of the workers.
- Training of all workers in an appropriate way.
- Assessment of each worker's state of health prior to beginning of exposure and then at least once every three years.
- Establishing an individual health record.

#### Employees' obligations

The asbestos Directive does not define workers' obligations directly except that suitable respiratory and other personal protective equipment must be worn (Art 12 (a)).



## 1.2.5. Directive 1999/92/EC (ATEX Directive)

### Scope

As explosions endanger the lives and health of workers as a result of the uncontrolled effects of flame and pressure, the presence of noxious reaction products and consumption of the oxygen in the ambient air which workers need to breathe, explosion protection is of particular importance to safety. According to this, the Directive lays down minimum requirements for the safety and health protection of workers potentially at risk from explosive atmospheres.

### Employers' obligations

To ensure the safety and health of workers, the employer must take the necessary measures so that:

- where explosive atmospheres may arise in such quantities as to endanger the health and safety of workers or others, the working environment is such that work can be performed safely,
- in working environments where explosive atmospheres may arise in such quantities as to endanger the safety and health of workers, appropriate supervision during the presence of workers is ensured in accordance with the risk assessment by the use of appropriate technical means.

The employer must assess the specific risks arising from explosive atmospheres, taking account at least of:

- the likelihood that explosive atmospheres will occur and their persistence,
- the likelihood that ignition sources, including electrostatic discharges, will be present and become active and effective,
- the installations, substances used, processes, and their possible interactions, including places which are or can be connected via openings to places in which explosive atmospheres may occur,
- the scale of the anticipated effects.

According to the first bullet, the employer shall classify places where explosive atmospheres (consisting of a mixture with air of flammable substances either in the form of gas, vapour or mist or in the form of a cloud of combustible dust in air) may occur into zones:

- Zone 0/20: A place in which an explosive atmosphere is present continuously or for long periods or frequently.
- Zone 1/21: A place in which an explosive atmosphere is likely to occur in normal operation occasionally.
- Zone 2/22: A place in which an explosive atmosphere is not likely to occur in normal operation but, if it does occur, will persist for a short period only.

To ensure the safety and health of workers, employers must take technical and/or organizational measures appropriate to the nature of the operation, in order of priority and in accordance with the following basic principles:

- the prevention of the formation of explosive atmospheres, or where the nature of the activity does not allow that,
- the avoidance of the ignition of explosive atmospheres, and
- the mitigation of the detrimental effects of an explosion.

These measures shall where necessary be combined and/or supplemented with measures against the propagation of explosions and shall be reviewed regularly and, in any event, whenever significant changes occur.

The employer must draw up an explosion protection document (or a set of documents providing the information), which includes:

- the identification of the hazards,
- the evaluation of risks, and
- the definition of the specific measures to be taken to safeguard the health and safety of workers at risk from explosive atmospheres.

The explosion protection document has to be kept up to date.

### Information and training tools of ISSA Chemistry Section:

[Dust Explosions - Protection against explosions due to flammable dusts \(brochure\). ISSA-32e](#)

[Dust Explosion Protection for Machines and Equipment, Part 1: Mills, crushers, mixers, separators, screeners \(brochure\). ISSA-38e](#)

[Collection of Examples "Dust Explosion Prevention and Protection for Machines and Equipment", Part 2: Conveyors, transfers and receivers \(brochure\). ISSA-39e](#)

[Identification and evaluation of hazards, determination of measures - Part 7: Explosion risks \(brochure\). ISSA-42](#)

[Dust Explosion Incidents: Their Causes, Effects and Prevention \(brochure\). ISSA-43e](#)



## 1.2.6. Directive 92/85/EEC (Breastfeeding and Pregnant Workers Directive / Maternity Leave Directive)

### Scope

The Maternity Leave Directive is directly linked to the guidelines of the framework Directive on occupational health and safety 89/391/EEC, according to which particularly sensitive risk groups must be protected against the dangers which specifically affect them.

- For pregnant workers, workers who have recently given birth or are breastfeeding, special protection measures shall not lead to disadvantages for women on the labour market.
- A particular exposure risk can exist for certain tasks involving
  - hazardous physical agents (for example shocks, handling of heavy loads, noise, ionizing and non-ionizing radiation, extremes of cold or heat) or
  - chemical or biological agents or procedures or
  - working conditions (for example underground mining).
- Any such risks for safety and health, as well as all consequences for pregnancy or breastfeeding, must be assessed and the results must be imparted to workers or their representatives. In case of a risk, measures to protect the worker must be implemented.

• They are not allowed to carry out tasks for which there is a risk of endangering exposure to especially hazardous agents, procedures, or working conditions. Certain endangering exposures or work conditions, like for instance underground mining, are prohibited.

- This Directive ensures the right for maternity leave within a defined, obligatory time period, as well as time off for ante-natal examinations.
- This Directive ensures prohibition of dismissal, as well as warranty of the rights connected with the work contract, including maintenance of a payment and/or entitlement to an adequate allowance.
- The member states are committed to implement regulations ensuring the worker will not be obligated to do night work, if this is necessary for safety and health reasons.

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than two years after the adoption thereof.

### Employers' obligations

As an example, only those obligations of the Directive will be depicted in detail which apply to exposure to hazardous substances, mixtures, or procedures.

The employer is responsible for the risk assessment of the nature, extent, and duration of exposure for every task involving a particular risk with the following hazardous substances, mixtures, or procedures:

- Substances or mixtures which meet the criteria of classification in one or several of the following hazard classes or hazard categories, with one or several of the following hazard statements pursuant the CLP regulation,
  - Germ cell mutagenicity, category 1A, 1B or 2 (H340, H341);
  - Carcinogenicity, category 1A, 1B or 2 (H350, H350i, H351);
  - Reproduction toxicity, category 1A, 1B or 2 or the additional category in the case of effects on or via lactation (H360, H360D, H360FD, H360Fd, H360Df, H361, H361d, H361fd, H362);
  - Specific target organ toxicity after singular exposure, category 1 or 2 (H370, H371).
- Procedures listed in attachment I of the Directive 2004/37/EC of the European Parliament and the Council:
  - Production of auramine;
  - Tasks involving workers' exposure to polycyclic aromatic hydrocarbons as present in coal soot, coal tar, and coal pitch;
  - Tasks involving the exposure to dusts, fumes, and sprays produced during roasting and electro-refining of cupronickel mattes;
  - Strong acid process in the manufacture of isopropyl alcohol;
  - Tasks involving workers' exposure to hardwood dusts.
- Mercury and mercury derivatives;
- Antimitotics;
- Carbon monoxide;
- Hazardous chemical agents with verifiable skin resorptive properties.

Pregnant workers may under no circumstances be obliged to perform duties for which the assessment has revealed a risk of exposure, which would jeopardize safety or health, to lead and lead derivatives in so far as these agents are capable of being absorbed by the human organism.

If risk assessment determines a hazard to health and safety, or a possible effect on pregnancy or breastfeeding of a worker, the employer takes the necessary measures in order to rule out the workers' exposure to the hazard. The following order of priority is to be observed:

- 1.The working conditions and/or working hours of the worker are to be adjusted temporarily.
- 2.If the adjustment of her workplace is not possible\*, the worker must be moved to another job.
- 3.If the transfer to another job is not possible\*, the worker shall be granted leave in accordance with national legislation and/or national practice for the whole of the period necessary to protect her safety and health.

\* "not possible" means technically and/or objectively not feasible, or cannot reasonably be required on duly substantiated grounds

Pregnant and breastfeeding workers may in no case be obligated to perform tasks involving the risk of an exposure to lead and lead derivatives, in so far that these agents are capable of being absorbed by the human organism.



## 1.2.7. Directive 2012/18/EU (Seveso-Directive)

### Scope

As major accidents involving dangerous substances often have serious consequences (as evidenced by accidents like Seveso, Bhopal, Schweizerhalle, Enschede, Toulouse and Buncefield) and the impact can even extend beyond national borders, this Directive lays down rules for the prevention of such major accidents, and for limitation of their consequences for human health and the environment, ensuring a high level of protection throughout the Union in a consistent and effective manner.

### General obligations

- Operators (this is the term used in the Directive instead of employers, as it is not necessary to have employees to create major accidents) have a general obligation to take all necessary measures to prevent major accidents, to mitigate their consequences and to take recovery measures.
- Where dangerous substances are present in establishments above certain quantities, the operator has to provide the competent authority with sufficient information to enable it to identify the establishment, the dangerous substances present and the potential dangers.
- Operators have to draw up a major-accident prevention policy (MAPP), setting out the operator's overall approach and measures, including appropriate safety management systems, for controlling major-accident hazards. When the operators identify and evaluate the major-accident hazards, consideration should also be given to the dangerous substances which may be generated during a severe accident within the establishment.

### Special obligations in the case of establishments where dangerous substances are present in significant quantities

- In order to demonstrate that all that is necessary has been done to prevent major accidents, and to prepare emergency plans and response measures, the operator must provide the competent authority with information in the form of a safety report, containing details of the establishment, the dangerous substances present, the installation or storage facilities, possible major-accident scenarios and risk analysis, prevention and intervention measures and the management systems available.
- During the preparation of major-accident scenarios it should be considered that the risk of a major accident could be increased by the probability of natural disasters associated with the location of the establishment.
- To prepare for emergencies, it is necessary to establish internal and external emergency plans and to establish procedures to ensure that those plans are tested and revised as necessary and implemented in the event of a major accident or the likelihood thereof.

### Further obligations for neighbourhood policies

- In order to provide greater protection for residential areas, areas of substantial public use and the environment, including areas of particular natural interest or sensitivity, it is necessary to ensure appropriate distances between such areas and establishments presenting such hazards and, where existing establishments are concerned, to implement, if necessary, additional technical measures so that the risk to persons or the environment is maintained at an acceptable level. Sufficient information about the risks and technical advice on these risks should be taken into account when decisions are taken.
- In order to reduce the risk of domino effects, where establishments are sited in such a way or so close together as to increase the likelihood of major accidents, or aggravate their consequences, operators and authorities should cooperate in the exchange of appropriate information and in informing the public, including neighbouring establishments that could be affected.

Necessary information is given in the annexes.

**Annex I:** provides a list of dangerous substances concerned with major accidents, either covered by the hazard categories or by their names and records the qualifying quantities to be applied.

**Annex II:** shows the minimum data and information to be considered in the safety report.

**Annex III:** cites information on the safety management system and the organisation of the establishment with a view to the prevention of major accidents.

**Annex IV:** records data and information to be included in the emergency plans.

**Annex V:** performs items of information to the public.

**Annex VI:** enumerates criteria for the notification of a major accident to the Commission:

- Dangerous substances being involved (i.e. any fire or explosion or accidental discharge of a dangerous substance with a quantity of at least 5 % of the qualifying quantity laid down in Annex I).
- Injury to persons and damage to real estate (i.e. either a death, or six persons injured within the establishment and hospitalised for at least 24 hours, or one person outside the establishment hospitalised for at least 24 hours, or dwellings outside the establishment damaged and unusable as a result of the accident, or the evacuation of persons for more than 2 hours (persons × hours  $\geq 500$ ), or the interruption of drinking water, electricity, gas or telephone services for more than 2 hours (persons × hours  $\geq 1000$ )).
- Immediate damage to the environment (i.e. either permanent or long-term damage to terrestrial habitats, or significant or long-term damage to freshwater and marine habitats, or significant damage to an aquifer or underground water. Each topic is clarified with numbers).
- Damage to property (i.e. damage to property in the establishment  $\geq$  EUR 2 000 000 or outside the establishment  $\geq$  EUR 500 000).
- Cross-border damage (i.e. any major accident directly involving a dangerous substance giving rise to effects outside the territory of the Member State concerned).

### Information and training tools of ISSA Chemistry Section:

[Misidentification of Chemicals ISSA-03e](#)

[Maintenance and Changes in Plants with High Safety Requirements Practical Guidance ISSA-04e](#)

[Reactive chemicals and chemical reactions \(Training tool for safety instructions\) ISSA-103e](#)

[Maintenance and hot work \(Training tool for safety instructions\) ISSA-105e](#)



## 2 National implementations of EU-Directives and examples of practical aids

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### 2.1. AUSTRIA



#### 2.1.1. Directive 89/391/EEC

Richtlinie 89/391/EWG des Rates vom 12. Juni 1989 über die Durchführung von Maßnahmen zur Verbesserung der Sicherheit und des Gesundheitsschutzes der Arbeitnehmer bei der Arbeit („Arbeitsschutzrahmenrichtlinie“)

Transposition in Austrian Law	English translation
<a href="#">Bundesgesetz über Sicherheit und Gesundheitsschutz bei der Arbeit (ArbeitnehmerInnenschutzgesetz – ASchG)</a>	Health and Safety at Work Act
<a href="#">Bundesgesetz über die Beschäftigung von Kindern und Jugendlichen 1987 (Kinder- und Jugendlichen-Beschäftigungsgesetz 1987 – KJBG)</a>	Federal Act on the Employment of Children and Young Persons 1987
<a href="#">Mutterschutzgesetz 1979 (MSchG)</a>	<a href="#">Employment of pregnant workers, workers who have recently given birth or are breastfeeding</a>

National practical aids (free available) with links:

Austrian	English
<a href="#">Allgemeine Unfallversicherungsanstalt (AUVA)</a>	General Accident Insurance Institution (AUVA)
<a href="#">Merkblatt M 030 „ArbeitnehmerInnenschutzgesetz“</a>	Leaflet M 030 “Employee Protection Act”

#### 2.1.2. Directive 98/24/EC

RICHTLINIE 98/24/EG DES RATES vom 7. April 1998 zum Schutz von Gesundheit und Sicherheit der Arbeitnehmer vor der Gefährdung durch chemische Arbeitsstoffe bei der Arbeit (vierzehnte Einzelrichtlinie im Sinne des Artikels 16 Absatz 1 der Richtlinie 89/391/EWG) („Agenzienrichtlinie“)

Transposition in Austrian Law	English
<a href="#">Bundesgesetz über Sicherheit und Gesundheitsschutz bei der Arbeit (ArbeitnehmerInnenschutzgesetz – ASchG)</a>	Health and Safety at Work Act
<a href="#">Verordnung des Bundesministers für Arbeit über Grenzwerte für Arbeitsstoffe sowie über krebserzeugende und fortpflanzungsgefährdende (reproduktionstoxische) Arbeitsstoffe (Grenzwerteverordnung 2021 – GKV)</a>	Ordinance of the Federal Minister of Labour on Limit Values for Working Substances and on Carcinogenic and Toxic to Reproduction (Reproduction Toxic) Working Substances (Limit Values Ordinance 2021)
<a href="#">Verordnung der Bundesministerin für Arbeit, Familie und Jugend über die Gesundheitsüberwachung am Arbeitsplatz 2020 (VGÜ)</a>	Ordinance of the Federal Minister of Labour, Family and Youth on Health Surveillance at the Workplace 2020
<a href="#">Verordnung des Bundesministers für Arbeit und Soziales über die Sicherheits- und Gesundheitsschutzdokumente (DOK-VO)</a>	Ordinance of the Federal Minister of Labour and Social Affairs on Safety and Health Protection Documents

National practical aids (free available) with links:

Austrian	English
<a href="#">Allgemeine Unfallversicherungsanstalt (AUVA)</a>	General Accident Insurance Institution (AUVA)
<a href="#">Merkblatt M.plus 302 „Gefährliche Arbeitsstoffe – Information und Unterweisung“</a>	Leaflet M.plus 302 “Hazardous substances – information and instruction”
<a href="#">„Leitfaden gefährliche Arbeitsstoffe“</a>	“Guide to hazardous working substances”
<a href="#">Merkblatt M 041 „Verordnung über Sicherheits- und Gesundheitsschutzdokumente“</a>	Leaflet M 041 “Ordinance on safety and health protection documents”

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### 2.1.3. Directive 2004/37/EC

RICHTLINIE 2004/37/EG DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 29. April 2004 über den Schutz der Arbeitnehmer gegen Gefährdung durch Karzinogene oder Mutagene bei der Arbeit (Sechste Einzelrichtlinie im Sinne von Artikel 16 Absatz 1 der Richtlinie 89/391/EWG des Rates) („Krebsrichtlinie“)

Austrian	English
<a href="#">Bundesgesetz über Sicherheit und Gesundheitsschutz bei der Arbeit (ArbeitnehmerInnenschutzgesetz – ASchG)</a>	Health and Safety at Work Act
<a href="#">Verordnung des Bundesministers für Arbeit über Grenzwerte für Arbeitsstoffe sowie über krebserzeugende und fortpflanzungsgefährdende (reproduktionstoxische) Arbeitsstoffe (Grenzwerteverordnung 2021 – GKV)</a>	Ordinance of the Federal Minister of Labour on Limit Values for Working Substances and on Carcinogenic and Toxic to Reproduction (Reproduction Toxic) Working Substances (Limit Values Ordinance 2021)
<a href="#">Verordnung der Bundesministerin für Arbeit, Familie und Jugend über die Gesundheitsüberwachung am Arbeitsplatz 2020 (VGÜ)</a>	Ordinance of the Federal Minister of Labour, Family and Youth on Occupational Health Surveillance 2020

National practical aids (free available) with links:

Austrian	English
<a href="#">Allgemeine Unfallversicherungsanstalt (AUVA)</a>	General Accident Insurance Institution (AUVA)
<a href="#">Folder „Gib Acht, Krebsgefahr!“</a>	Folder “Be careful, cancer risk!”
<a href="#">Merkblatt M 340 „Krebserzeugende Arbeitsstoffe erkennen und handhaben“</a>	Leaflet M 340 “Recognising and handling carcinogenic agents”
<a href="#">Merkblatt M.plus 340 „Krebserzeugende Arbeitsstoffe erkennen und handhaben“</a>	Leaflet M.plus 340 “Recognising and handling carcinogenic agents”
<a href="#">Merkblatt M.plus 340.1 „Krebserzeugende Arbeitsstoffe in Gesundheitseinrichtungen“</a>	Leaflet M.plus 340.1 “Carcinogenic agents in health care facilities”
<a href="#">Merkblatt M.plus 340.2 „Krebserzeugende Arbeitsstoffe beim Kunststoffspritzgießen (Verarbeitung von POM)“</a>	Leaflet M.plus 340.2 “Carcinogenic agents in plastic injection moulding (processing of POM)”

[Merkblatt M.plus 340.3 „Krebserzeugende Arbeitsstoffe beim Edelstahlschweißen“](#)

Leaflet M.plus 340.3  
“Carcinogenic agents in stainless steel welding”

[Merkblatt M.plus 340.5 „Krebserzeugende Arbeitsstoffe bei handgeführten Arbeitsmitteln mit Zweitaktmotor“](#)

Leaflet M.plus 340.5  
“Carcinogenic agents in hand-held work equipment with two-stroke engine”

[Merkblatt M.plus 340.6 „Krebserzeugende Arbeitsstoffe auf Baustellen“](#)

Leaflet M.plus 340.6  
“Carcinogenic agents on construction sites”

[Merkblatt M.plus 340.7 „Gesundheitsgefährdende Arbeitsstoffe in öffentlichen Apotheken“](#)

Leaflet M.plus 340.7  
“Substances hazardous to health in public pharmacies”

[Merkblatt M.plus 340.8 „Krebserzeugende Arbeitsstoffe in chirurgischen Rauchgasen“](#)

Leaflet M.plus 340.8  
“Carcinogenic agents in surgical fumes”

[Merkblatt M.plus 340.9 „Krebserzeugende Arbeitsstoffe in der Be- und Verarbeitung von Metall“](#)

Leaflet M.plus 340.9  
“Carcinogenic agents in the working and processing of metal”

[„Leitfaden Holzstaub“](#)

“Guideline Wood Dust”



#### 2.1.4. Directive 2009/148/EC

RICHTLINIE 2009/148/EG DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 30. November 2009 über den Schutz der Arbeitnehmer gegen Gefährdung durch Asbest am Arbeitsplatz („Asbestrichtlinie“)

In Verbindung mit der REACH-Verordnung und den beiden Ausnahmetatbeständen zu dem Tätigkeitsverbot in Artikel 5 Satz 2 der Asbestrichtlinie (Ausnahme nach Anhang XVII Ziff. 6 Abs. 1 S. 2 REACH-Verordnung, Ausnahme nach Anhang XVII Ziff. 6 Abs. 2 S. 1 REACH-Verordnung)

Austrian	English
<a href="#">Verordnung des Bundesministers für Arbeit über Grenzwerte für Arbeitsstoffe sowie über krebserzeugende und fortpflanzungsgefährdende (reproduktionstoxische) Arbeitsstoffe (Grenzwerteverordnung 2021 – GKV)</a>	Ordinance of the Federal Minister of Labour on Limit Values for Working Substances and on Carcinogenic and Toxic to Reproduction (Reproduction Toxic) Working Substances (Limit Values Ordinance 2021)

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National practical aids (free available) with links:

Austrian	English
<a href="#">Arbeitsinspektion „Asbest – Kein Thema der Vergangenheit“</a>	Labour Inspectorate "Asbestos – Not an issue of the past"
<a href="#">Allgemeine Unfallversicherungsanstalt (AUVA)</a>	General Accident Insurance Institution (AUVA)
<a href="#">Merkblatt M.plus 267.1 „Information und Unterweisung bei Asbestexposition“</a>	Leaflet M.plus 267.1 "Information and instruction on exposure to asbestos"
<a href="#">Merkblatt M.plus 267 „Richtiger Umgang mit Asbest“</a>	Leaflet M.plus 267 "Correct handling of asbestos"

#### 2.1.5. Directive 1999/92/EC

Richtlinie 1999/92/EG des Europäischen Parlaments und des Rates vom 16. Dezember 1999 über Mindestvorschriften zur Verbesserung des Gesundheitsschutzes und der Sicherheit der Arbeitnehmer, die durch explosionsfähige Atmosphären gefährdet werden können (Fünfzehnte Einzelrichtlinie im Sinne von Artikel 16 Absatz 1 der Richtlinie 89/391/EWG) („ATEX-Richtlinie“)

Transposition in Austrian Law	English
<a href="#">Verordnung des Bundesministers für Wirtschaft und Arbeit über den Schutz der Arbeitnehmer/innen vor explosionsfähigen Atmosphären und mit der die Bauarbeiterenschutzverordnung und die Arbeitsmittel-Verordnung geändert werden (Verordnung explosionsfähige Atmosphären – VEXAT)</a>	Ordinance of the Federal Minister of Economics and Labour on the Protection of Workers from Potentially Explosive Atmospheres and amending the Construction Workers' Protection Ordinance and the Work Equipment Ordinance (Explosive Atmospheres Ordinance – VEXAT)

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National practical aids (free available) with links:

Austrian	English
<a href="#">Allgemeine Unfallversicherungsanstalt (AUVA)</a>	General Accident Insurance Institution (AUVA)
<a href="#">Evaluierungsheft E 06 A „Explosionsgefährdungen“</a>	Evaluation Booklet E 06 A "Explosion Hazards"

#### 2.1.6. Directive 92/85/EEC

RICHTLINIE 92/85/EWG DES RATES vom 19. Oktober 1992 über die Durchführung von Maßnahmen zur Verbesserung der Sicherheit und des Gesundheitsschutzes von schwangeren Arbeitnehmerinnen, Wöchnerinnen und stillenden Arbeitnehmerinnen am Arbeitsplatz (zehnte Einzelrichtlinie im Sinne des Artikels 16 Absatz 1 der Richtlinie 89/391/EWG) („Mutterschutzrichtlinie“)

Transposition in Austrian Law	English
<a href="#">Mutterschutzgesetz 1979 – MSchG</a>	Employment of pregnant workers, workers who have recently given birth or are breastfeeding



## 2.1.7. Directive 2012/18/EU

RICHTLINIE 2012/18/EU DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 4. Juli 2012 zur Beherrschung der Gefahren schwerer Unfälle mit gefährlichen Stoffen, zur Änderung und anschließenden Aufhebung der Richtlinie 96/82/EG des Rates („Seveso-III-Richtlinie“)



Transposition in Austrian Law	English
Gewerbeordnung 1994 (GewO 1994)	Industrial Code 1994 (GewO 1994)
Abschnitt 8a für Industrieunfallverordnung 2015	Section 8a for Industrial Accidents Ordinance 2015

National practical aids (free available) with links:

Austrian	English
<a href="#">Wirtschaftskammer Österreich</a> <a href="#">Industrieunfallrecht</a>	Austrian Federal Economic Chamber Industrial Accident Law

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## 2.2. FRANCE

### 2.2.1. Directive 89/391/EEC

Directive 89/391/CEE du Conseil, du 12 juin 1989, concernant la mise en œuvre de mesures visant à promouvoir l'amélioration de la sécurité et de la santé des travailleurs au travail

Transposition in French Law	English
<a href="#">Loi n°91-1414 du 31/12/1991 modifiant le Code du travail et le Code de la santé publique en vue de favoriser la prévention des risques professionnels et portant transposition de directives européennes relatives à la santé et à la sécurité du travail JO du 07/01/1992, page 319</a> Loi-cadre sur la prévention des risques professionnels et sur la santé et la sécurité au travail	Framework law on the prevention of occupational risks and on health and safety at work
<a href="#">Décret n°92-158 du 20/02/1992 complétant le Code du travail (2<sup>ème</sup> partie : décrets en Conseil d'État) et fixant les prescriptions particulières d'hygiène et de sécurité applicables aux travaux effectués dans un établissement par une entreprise extérieure ]O du 22/02/1992, page 2779</a> Décret fixant les prescriptions particulières d'hygiène et de sécurité applicables aux travaux effectués dans un établissement par une entreprise extérieure	Decree laying down the specific health and safety requirements applicable to work carried out in an establishment by an external company
<a href="#">Décret n°2021/1016 du 5/11/2001 portant création d'un document relatif à l'évaluation des risques pour la santé et la sécurité des travailleurs, prévue par l'article L.230-2 du Code du travail réf : JO n° 258 du 07/11/2001 p. 17523 JO du 24/02/2001, page 3022</a> Décret relatif à la création d'un document relatif à l'évaluation des risques pour la santé et la sécurité des travailleurs	Decree on the creation of a document relating to the assessment of risks to the health and safety of workers
<a href="#">Décret n° 2008-1347 du 17 décembre 2008 relatif à l'information et à la formation des travailleurs sur les risques pour leur santé et leur sécurité</a> Décret relatif à l'information et la formation des travailleurs sur les risques pour leur santé et leur sécurité	Decree relating to the information and training of workers on the risks to their health and safety
<a href="#">Articles L. 4121-1 et suivants du Code du travail</a> <a href="#">Articles R. 4121-1 et suivants du Code du travail</a> <a href="#">Articles R. 4141-1 et suivants du Code du travail</a> Articles du Code du travail (Principes généraux de prévention / Formation et information des travailleurs)	Articles of the French Labour Code (General principles of prevention / Information and training of workers)

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National practical aids (free available) with links:

French	English
<a href="#">Dossier Web INRS : Principes généraux de la démarche de prévention</a>	INRS web dossier: General principles of prevention

## 2.2.2. Directive 98/24/EC

DIRECTIVE 98/24/CE DU CONSEIL du 7 avril 1998 concernant la protection de la santé et de la sécurité des travailleurs contre les risques liés à des agents chimiques sur le lieu de travail (quatorzième directive particulière au sens de l'article 16, paragraphe 1, de la directive 89/391/CEE)

Transposition in French Law	English
<a href="#">Décret n° 2003-1254 du 23 décembre 2003 relatif à la prévention du risque chimique et modifiant le Code du travail (deuxième partie : Décrets en Conseil d'Etat)</a>	Decree relating to the prevention of chemical risk
Décret relatif à la prévention du risque chimique	

  

Articles R. 4412-1 à R. 4412-57 du Code du travail	Articles of the French Labour Code relating to hazardous chemical agents
Articles du Code du travail français relatifs aux agents chimiques dangereux	

National practical aids (free available) with links:

French	English
Circulaire DRT du ministère du travail n°12 du 24 mai 2006 (non parue au JO)	Circular by the Labour Ministry No. 12 of 24 May 2006 (not published in the Official Journal of the French Republic)
<a href="#">ED 6150_Travailler avec des produits chimiques. Pensez prévention des risques! (document INRS)</a>	ED 6150 – Working with chemicals and risk prevention (INRS document)

## 2.2.3. Directive 2004/37/EC

DIRECTIVE 2004/37/CE DU PARLEMENT EUROPEEN ET DU CONSEIL du 29 avril 2004 concernant la protection des travailleurs contre les risques liés à l'exposition à des agents cancérogènes ou mutagènes au travail (sixième directive particulière au sens de l'article 16, paragraphe 1, de la directive 89/391/CEE du Conseil) (« CMD »)

Transposition in French Law	English
<a href="#">Arrêté du 13 juillet 2006 modifiant l'arrêté du 5 janvier 1993 fixant la liste des substances, préparations et procédés cancérogènes au sens du deuxième alinéa de l'article R. 231-56 du Code du travail</a>	Order establishing the list of carcinogenic substances, mixtures and processes
Arrêté fixant la liste des substances, mélanges et procédés cancérogènes	

  

Articles R. 4412-59 à R. 4412-93 du Code du travail	Articles of the French Labour Code relating to carcinogenic, mutagenic and reprotoxic (CMR) substances
Articles du Code du travail français relatifs aux agents cancérogènes, mutagènes et toxiques pour la reproduction	

National practical aids (free available) with links:

French	English
Circulaire DRT du ministère du travail n°12 du 24 mai 2006 (non parue au JO)	Circular by the Labour Ministry No. 12 of 24 May 2006 (not published in the Official Journal of the French Republic)
<a href="#">Circulaire DGT n° 2010-03 du 13 avril 2010 relative au contrôle du risque chimique sur les lieux de travail</a>	Circular by the Labour Ministry No. 2010-03 of 13 April 2010 concerning chemical risk control at the workplace
Outils INRS : <a href="#">Outil 66 (CMR)</a> <a href="#">Outil 65 (VLEP)</a>	INRS tools: Tool 66 (CMR) and tool 65 (OELVs)



#### 2.2.4. Directive 2009/148/EC

DIRECTIVE 2009/148/CE DU PARLEMENT EUROPEEN ET DU CONSEIL, du 30 novembre 2009 concernant la protection des travailleurs contre les risques liés à une exposition à l'amiante pendant le travail

Transposition in French Law	English
<a href="#">Décret n° 2006-761 du 30 juin 2006 relatif à la protection des travailleurs contre les risques liés à l'inhalation de poussières d'amiante</a>	Decree on the protection of workers against the risks associated with inhalation of asbestos dust
Décret relatif à la protection des travailleurs contre les risques liés à l'inhalation de poussières d'amiante	
<a href="#">Décret n° 2012-639 du 4 mai 2012 relatif aux risques d'exposition à l'amiante (modifié par décret n° 2015-789 du 29 juin 2015)</a>	Decree on the risks of exposure to asbestos
Décret relatif aux risques d'exposition à l'amiante	
<a href="#">Décret n° 2017-899 du 9 mai 2017 relatif au repérage de l'amiante avant certaines opérations</a>	Decree on the identification of asbestos before certain operations
Décret relatif au repérage de l'amiante avant certaines opérations	

National practical aids (free available) with links:

French	English
<a href="#">Dossier Web INRS : Amiante</a>	INRS web dossier: Asbestos
<a href="#">L'amiante dans le second œuvre du BTP</a>	Asbestos in finishing work in construction
<a href="#">Fiche Toxicologique 145 (document INRS) : Amiante</a>	Toxicology sheet 145 (INRS document): Asbestos
<a href="#">Site du ministère du travail français concernant l'amiante</a>	Asbestos-related website of the French Labour Ministry

#### 2.2.5. Directive 1999/92/EC

DIRECTIVE 1999/92/CE DU PARLEMENT EUROPÉEN ET DU CONSEIL, du 16 décembre 1999, concernant les prescriptions minimales visant à améliorer la protection en matière de sécurité et de santé des travailleurs susceptibles d'être exposés au risque d'atmosphères explosives (quinzième directive particulière au sens de l'article 16, paragraphe 1, de la directive 89/391/CEE) (« directive ATEX »)

Transposition in French Law	English
<a href="#">Décret n° 2002-1553 du 24 décembre 2002 relatif aux dispositions concernant la prévention des explosions applicables aux lieux de travail et modifiant le chapitre II du titre III du livre II du Code du travail (deuxième partie : Décrets en Conseil d'État)</a>	Decree on provisions for the prevention of explosions at workplace
Décret relatif aux dispositions concernant la prévention des explosions sur le lieu du travail	
<a href="#">Arrêté du 8 juillet 2003 relatif à la protection des travailleurs susceptibles d'être exposés à une atmosphère explosive</a>	Order relating to the protection of workers likely to be exposed to an explosive atmosphere
Arrêté relatif à la protection des travailleurs susceptibles d'être exposés à une atmosphère explosive	
<a href="#">Arrêté du 8 juillet 2003 complétant l'arrêté du 4 novembre 1993 relatif à la signalisation de sécurité et de santé au travail</a>	Order relating to the security and health signs at workplace
Arrêté relatif à la signalisation de sécurité et de santé au travail	
<a href="#">Décret n° 2002-1554 du 24 décembre 2002 relatif aux dispositions concernant la prévention des explosions que doivent observer les maîtres d'ouvrage lors de la construction des lieux de travail et modifiant le chapitre V du titre III du livre II du Code du travail (deuxième partie : Décrets en Conseil d'État)</a>	Decree on provisions for the prevention of explosions which must be observed by building contractors during the construction of workplaces
Décret relatif aux dispositions concernant la prévention des explosions que doivent observer les maîtres d'ouvrage lors de la construction des lieux de travail	
<a href="#">Arrêté du 28 juillet 2003 relatif aux conditions d'installation des matériels électriques dans les emplacements où des atmosphères explosives peuvent se présenter</a>	Order on the conditions of installation of electrical equipment in locations where explosive atmospheres can form
Arrêté relatif aux conditions d'installations des matériels électriques dans les emplacements où des atmosphères explosives peuvent se former	



National practical aids (free available) with links:

French	English
<a href="#">Articles R. 4227-42 à R. 4227-54 du Code du travail</a> <a href="#">Article R. 4216-31 du Code du travail</a>	Articles R.4227-42 to R.4227-54 and Article R.4216-31 of the French Labour Code
<a href="#">Dossier Web INRS : Explosion sur le lieu de travail</a>	INRS web dossier: Explosion in the workplace
<a href="#">ED 6337 L'essentiel sur l'explosion d'ATEX sur le lieu de travail (document INRS)</a>	ED 6337 – The basics about explosions in potentially explosive atmospheres at the workplace (INRS document)

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## 2.2.6. Directive 92/85/EEC

DIRECTIVE 92/85/CEE DU CONSEIL, du 19 octobre 1992, concernant la mise en œuvre de mesures visant à promouvoir l'amélioration de la sécurité et de la santé des travailleuses enceintes, accouchées ou allaitantes au travail (dixième directive particulière au sens de l'article 16 paragraphe 1 de la directive 89/391/CEE)

Transposition in French Law	English
<a href="#">Décret n° 96-364 du 30 avril 1996 relatif à la protection des travailleuses enceintes ou allaitant contre les risques résultant de leur exposition à des agents chimiques, biologiques et physiques et modifiant notamment le Code du travail (deuxième partie : Décrets en Conseil d'État)</a>	Decree on the protection of pregnant workers or workers who have recently given birth or are breastfeeding against the risks of exposure to chemical agents
Décret relatif à la protection des travailleuses enceintes ou allaitantes contre les risques d'exposition à des agents chimiques	
<a href="#">Ordonnance n° 2001-173 du 22 février 2001 relative à la transposition de la directive 92/85/ CEE du Conseil du 19 octobre 1992 concernant la mise en œuvre de mesures visant à promouvoir l'amélioration de la sécurité et de la santé des travailleuses enceintes, accouchées ou allaitantes au travail</a>	Order on the implementation of measures to promote the improvement of the safety and health of pregnant workers or workers who have recently given birth or are breastfeeding
Ordonnance concernant la mise en œuvre de mesures visant à promouvoir l'amélioration de la sécurité et de la santé des travailleuses enceintes ou allaitantes	

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National practical aids (free available) with links:

French	English
<a href="#">ED 6261 Produits chimiques. Protégez votre grossesse (document INRS)</a>	ED 6261 – Chemical risks and pregnancy (INRS document)
<a href="#">DEMETER (Documents pour l'évaluation médicale des produits toxiques vis-à-vis de la reproduction, base de données INRS)</a>	DEMETER (Documents for the medical evaluation of reproductive toxicants, INRS database)
<a href="#">TJ 14 Grossesse, maternité et travail/Aide-mémoire juridique (document INRS)</a>	TJ 14 – Pregnancy, maternity protection and work/A legal overview (INRS document)



## 2.2.7. Directive 2012/18/UE

DIRECTIVE 2012/18/UE DU PARLEMENT EUROPEEN ET DU CONSEIL du 4 juillet 2012 concernant la maîtrise des dangers liés aux accidents majeurs impliquant des substances dangereuses, modifiant puis abrogeant la directive 96/82/CE du Conseil Texte présentant de l'intérêt pour l'EEE (« Directive SEVESO »)



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Transposition in French Law	English
<a href="#">Loi n° 2013-619 du 16 juillet 2013 portant diverses dispositions d'adaptation au droit de l'Union européenne dans le domaine du développement durable</a>	Law on various adaptation provisions to European Union law in the field of sustainable development
Loi portant diverses dispositions d'adaptation au droit de l'Union européenne dans le domaine du développement durable	
<a href="#">Décret n° 2014-284 du 3 mars 2014 modifiant le titre Ier du livre V du code de l'environnement</a>	Decree on the provisions common to installations classified for the protection of the environment that could create major accidents involving dangerous substances
Décret déterminant les dispositions communes aux installations classées pour la protection de l'environnement susceptibles de créer des accidents majeurs impliquant des substances dangereuses	
<a href="#">Décret n° 2014-285 du 3 mars 2014 modifiant la nomenclature des installations classées pour la protection de l'environnement</a>	Decree on the nomenclature of installations classified for the protection of the environment
Décret concernant la nomenclature des installations classées pour la protection de l'environnement	

National practical aids (free available) with links:

French	English
<a href="#">Site du ministère de la transition écologique concernant la directive SEVESO</a>	Website of the Ministry for the Ecological Transition concerning the Seveso Directive
<a href="#">Site officiel de l'administration française concernant les installations classées pour la protection de l'environnement (ICPE)</a>	Official website of the French administration concerning installations listed under environment protection regulations
<a href="#">Dossier Web INRS : Prévention et risques industriels</a>	INRS web dossier: Prevention and industrial risks

## 2.3. GERMANY

### 2.3.1. Directive 89/391/EEC

RICHTLINIE 89/391/EWG DES RATES vom 12. Juni 1989 über die Durchführung von Maßnahmen zur Verbesserung der Sicherheit und des Gesundheitsschutzes der Arbeitnehmer bei der Arbeit („Arbeitsschutzrahmenrichtlinie“)

Transposition in German Law	English
<a href="#">Gesetz über die Durchführung von Maßnahmen des Arbeitsschutzes zur Verbesserung der Sicherheit und des Gesundheitsschutzes der Beschäftigten bei der Arbeit (Arbeitsschutzgesetz – ArbSchG)</a>	<a href="#">Act on the Implementation of Measures of Occupational Safety and Health to Encourage Improvements in the Safety and Health Protection of Workers at Work</a>
<a href="#">Verordnung zum Schutz vor Gefahrstoffen (Gefahrstoffverordnung – GefStoffV)</a>	<a href="#">Hazardous Substances Ordinance</a>
<a href="#">DGUV Vorschriften der Unfallversicherungssträger, wie z. B. DGUV Vorschrift 1: Unfallverhütungsvorschrift Grundsätze der Prävention</a>	DGUV Regulations of the Accident Insurance Institutions, e.g. DGUV Regulation 1: Accident Prevention Regulation Principles of Prevention
<a href="#">Technische Regeln für Gefahrstoffe der Reihen 400, 500, 600, 700, 800 und 900</a>	<a href="#">Technical Rules for Hazardous Substances of the series 400, 500, 600, 700, 800 und 900</a>
DGUV Regeln mit bereichs-, arbeitsverfahrens- oder arbeitsplatzbezogenen Inhalten; sie werden von den Fachbereichen der DGUV erarbeitet (siehe unter Praxishilfen)	DGUV rules with content related to specific areas, work processes or workplaces. They are drawn up by the Expert Groups of the DGUV (see practical aids)
<a href="#">Verordnung zur arbeitsmedizinischen Vorsorge (ArbMedVV)</a>	<a href="#">Ordinance on Preventive Occupational Health Care</a>
<a href="#">Arbeitsmedizinische Regeln (AMR)</a>	Technical Rules on Preventive Occupational Health Care
<a href="#">Verordnung über Arbeitsstätten (Arbeitsstättenverordnung – ArbStättV) (für eventl. Altlasten in Gebäuden)</a>	<a href="#">Ordinance on Workplaces (Workplace Ordinance - ArbStättV)</a>
<a href="#">Technische Regeln für Arbeitsstätten (ASR)</a>	Technical Rules of Workplaces

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National practical aids (free available) with links:

German	English
<a href="#">Begriffsglossar zu den Regelwerken der Betriebssicherheitsverordnung, der Biostoffverordnung und der Gefahrstoffverordnung</a>	Glossary of terms relating to the regulations of the Ordinance on Industrial Safety and Health, the Ordinance on Biological Substances and the Ordinance on Hazardous Substances
<a href="#">Merkblätter im Downloadcenter der Berufsgenossenschaft Rohstoffe und chemische Industrie (BG RCI)</a>	<a href="#">Leaflets available on the German Social Accident Insurance Institution for the raw materials and chemical industry (BG RCI) download center</a>
Merkblatt A 016: „Gefährdungsbeurteilung“ Merkblatt A 017: „Gefährdungsbeurteilung – Gefährdungskatalog“	Leaflet A 016e: “Risk Assessment” Leaflet A 017e: “Risk Assessment – Hazard Catalogue”
<a href="#">Informationen zur Gefährdungsbeurteilung auf den Seiten der DGUV (Deutsche Gesetzliche Unfallversicherung)</a>	<a href="#">Information on risk assessment on the German Social Accident Insurance (DGUV) website</a>
<a href="#">Leitfaden für die Gefährdungsbeurteilung in Klein- und Mittelbetrieben</a>	<a href="#">Guide for Risk Assessment in Small and Medium Enterprises</a>
<a href="#">DGUV Grundsätze für arbeitsmedizinische Untersuchungen</a>	<a href="#">DGUV Guidelines for Occupational Medical Examinations</a>

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<a href="#">TRGS 400 „Gefährdungsbeurteilung für Tätigkeiten mit Gefahrstoffen“</a>	<a href="#">TRGS 400 “Risk assessment for activities involving hazardous substances”</a>
<a href="#">TRGS 401 „Gefährdung durch Hautkontakt – Ermittlung, Beurteilung, Maßnahmen“</a>	<a href="#">TRGS 401 “Risks resulting from skin contact – identification, assessment, measures”</a>
<a href="#">TRGS 402 „Ermitteln und Beurteilen der Gefährdungen bei Tätigkeiten mit Gefahrstoffen: Inhalative Exposition“</a>	<a href="#">TRGS 402 “Identification and assessment of the risks from activities involving hazardous substances: inhalation exposure”</a>
<a href="#">TRGS 500 „Schutzmaßnahmen“</a>	TRGS 500 “Protective measures”
<a href="#">TRGS 509 „Lagern von flüssigen und festen Gefahrstoffen in ortsfesten Behältern sowie Füll- und Entleerstellen für ortsbewegliche Behälter“</a>	TRGS 509 “Storage of liquid and solid hazardous substances in stationary containers as well as filling and emptying points for portable containers”
<a href="#">TRGS 510 „Lagerung von Gefahrstoffen in ortsbeweglichen Behältern“</a>	<a href="#">TRGS 510 “Storage of hazardous substances in non-stationary containers”</a>
<a href="#">TRGS 526 „Laboratorien“</a>	TRGS 526 “Laboratories”
<a href="#">TRGS 527 „Tätigkeiten mit Nanomaterialien“</a>	<a href="#">TRGS 527 “Activities with nanomaterials”</a>
<a href="#">TRGS 555 „Betriebsanweisung und Information der Beschäftigten“</a>	<a href="#">TRGS 555 “Working instruction and information for workers”</a>
<a href="#">TRGS 600 „Substitution“</a>	<a href="#">TRGS 600 “Substitution”</a>
	<a href="#">TRGS 600 – 619 (Summaries): Summaries of the TRGS 600 – 619, which are dealing with restrictions on use, substitutes and substitution of processes or technology</a>
Technische Regeln der Reihe 900: <a href="#">TRGS 900 „Arbeitsplatzgrenzwerte“</a>	Technical rules of the 900 series: TRGS 900 “Occupational exposure limit values”
<a href="#">TRGS 903 „Biologische Grenzwerte (BGW)“</a>	TRGS 903 “Biological limit values”
<a href="#">TRGS 907 „Verzeichnis sensibilisierender Stoffe und von Tätigkeiten mit sensibilisierenden Stoffen“</a>	TRGS 907 “List of sensitizing substances and activities involving sensitizing substances”
DGUV Regeln mit bereichs-, arbeitsverfahrens- oder arbeitsplatzbezogenen Inhalten; sie werden von den Fachbereichen der DGUV erarbeitet (siehe unter Praxishilfen)	DGUV rules with content related to specific areas, work processes or workplaces. They are drawn up by the Expert Committees and Expert Groups of the DGUV (see practical aids)

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### 2.3.2. Directive 98/24/EC

RICHTLINIE 98/24/EG DES RATES vom 7. April 1998 zum Schutz von Gesundheit und Sicherheit der Arbeitnehmer vor der Gefährdung durch chemische Arbeitsstoffe bei der Arbeit (vierzehnte Einzelrichtlinie im Sinne des Artikels 16 Absatz 1 der Richtlinie 89/391/EWG) („Agenzienrichtlinie“)

Transposition in German Law	English
<a href="#">Gesetz zum Schutz vor Gefahrstoffen (Chemikaliengesetz – ChemG)</a>	<a href="#">Act on the Protection Against Hazardous Substances (Chemicals Act, Chemikaliengesetz – ChemG)</a>
<a href="#">Verordnung zum Schutz vor Gefahrstoffen (Gefahrstoffverordnung - GefStoffV)</a>	<a href="#">Hazardous Substances Ordinance</a>
Technische Regeln für Gefahrstoffe der Reihen 400, 500, 600, 700, 800 und 900	Technical Rules for Hazardous Substances of the series 400, 500, 600, 700, 800, and 900 The following English translations of technical rules are available (unofficial versions, mandatory are the current German versions):



National practical aids (free available) with links:

German	English
<a href="#">Begriffsglossar zu den Regelwerken der Betriebs-sicherheitsverordnung, der Biostoffverordnung und der Gefahrstoffverordnung</a>	Glossary of terms relating to the regulations of the Ordinance on Industrial Safety and Health, the Ordinance on Biological Substances and the Ordinance on Hazardous Substances
<a href="#">Publikationen des Sachgebiets Gefahrstoffe im Fachbereich „Rohstoffe und chemische Industrie“ (FB RCI) der DGUV</a>	Practical materials published in English by the Expert Group "Hazardous Substances" in the DGUV Expert Committee "Raw Materials and Chemical Industry"
	<a href="#">DGUV Information 213-027 "Safety in University Chemistry Courses"</a>
	<a href="#">DGUV Information 213-044 "Hazardous Substances at Universities"</a>
<a href="#">Publikationen des Sachgebiets Laboratorien im FB RCI der DGUV</a>	Practical materials published in English by the Expert Group "Laboratories" in the DGUV Expert Committee "Raw Materials and Chemical Industry"
	<a href="#">DGUV Information 213-851 "Working Safely in Laboratories"</a>
	<a href="#">DGUV Information 213-854 "Nanomaterials in the Laboratory"</a>
<a href="#">Publikationen des Sachgebiets Gesundheitsgefährlicher mineralischer Staub im FB RCI der DGUV</a>	Practical materials published by the Expert Group "Hazardous Mineral Dust" in the DGUV Expert Committee "Raw Materials and Chemical Industry"
<a href="#">Branchenregeln des Fachbereiches „Holz und Metall“ der DGUV</a>	Industry rules of the Expert Committee "Wood and metal" of the DGUV
<a href="#">Publikationen des Sachgebiets Explosionsgefährliche Stoffe im FB RCI der DGUV (allerdings setzt das Explosivstoffrecht hauptsächlich die Richtlinie 93/15/EWG und weitere um)</a>	Practical materials published by the Expert Group "Explosive Substances" in the DGUV Expert Committee "Raw Materials and Chemical Industry" (however, the explosives legislation mainly implements Directive 93/15/EEC and others)
<a href="#">Einfaches Maßnahmenkonzept Gefahrstoffe (EMKG)</a>	<a href="#">Easy-to-use Workplace Control Scheme for Hazardous Substances (EMKG)</a>

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<a href="#">GisChem Gefahrstoffinformationssystem Chemikalien der BG RCI und der Berufsgenossenschaft Holz und Metall (BGHM)</a>	GisChem Hazardous Substance Information System of the BG RCI and BGHM <a href="#">mixture calculator</a>
<a href="#">WINGIS online: Programm des Gefahrstoffinformationssystems der Berufsgenossenschaft der Bauwirtschaft (GISBAU) <a href="#">www.wingisonline.de/</a> <a href="#">www.gisbauapps.de/</a> <a href="#">www.bgbau.de/themen/sicherheit-und-gesundheit/gefahrstoffe/gisbau/</a></a>	WINGIS online: Hazardous Substance Information System of the German Social Accident Insurance Institution for Construction Industry BG BAU (GISBAU)
<a href="#">Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung (GESTIS)</a>	<a href="#">GESTIS is the information system on hazardous substances of the German Social Accident Insurance</a>
<a href="#">GESTIS-Stoffenmanager® zur quantitativen Abschätzung der inhalativen Exposition (IFA der DGUV)</a>	<a href="#">GESTIS-Stoffenmanager® Assistance for the risk assessment and the estimation of inhalative exposure (Institute for Occupational Safety and Health of the German Social Accident Insurance)</a>
<a href="#">Arbeitsbedingte Exposition gegenüber der einatembaren und der alveolengängigen Staubfraktion (IFA Report 6/2020)</a>	<a href="#">IFA Report 6/2020e: Occupational exposure to the inhalable and respirable dust fractions</a>
<a href="#">Merkblätter M-Reihe Gefahrstoffe der BG RCI</a>	Leaflets "Series M" of the BG RCI
<a href="#">Schriftenreihe "kurz &amp; bündig" (KB) der BG RCI</a>	Publication series of BG RCI "kurz & bündig" (short and succinct)

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### 2.3.3. Directive 2004/37/EC

RICHTLINIE 2004/37/EG DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 29. April 2004 über den Schutz der Arbeitnehmer gegen Gefährdung durch Karzinogene oder Mutagene bei der Arbeit (sechste Einzelrichtlinie im Sinne von Artikel 16 Absatz 1 der Richtlinie 89/391/EWG des Rates) („Krebsrichtlinie“)

Transposition in German Law	English
<a href="#">Gesetz zum Schutz vor gefährlichen Stoffen (Chemikaliengesetz – ChemG)</a>	<a href="#">Act on the Protection Against Hazardous Substances (Chemicals Act, Chemikaliengesetz – ChemG)</a>
<a href="#">Verordnung zum Schutz vor Gefahrstoffen (Gefahrstoffverordnung – GefStoffV)</a>	<a href="#">Hazardous Substances Ordinance</a>
<a href="#">Technische Regeln für Gefahrstoffe</a>	<a href="#">Technical Rules for Hazardous Substances</a>  The following English translations of technical rules are available when a link is given (unofficial versions, mandatory are the current German versions):
<a href="#">TRGS 410 „Expositionsverzeichnis bei Gefährdung gegenüber krebserzeugenden oder keimzellmutagenen Gefahrstoffen der Kategorien 1A oder 1B“</a>	TRGS 410 “Exposure inventory in case of exposure to carcinogenic or germ cell mutagenic hazardous substances of categories 1A or 1B”
<a href="#">TRGS 905 „Verzeichnis krebserzeugender, keimzellmutagener oder reproduktionstoxischer Stoffe“</a>	TRGS 905 “Inventory of carcinogenic substances, germ cell mutagenic substances, or reproductive toxicants”
<a href="#">TRGS 906 „Verzeichnis krebserzeugender Tätigkeiten oder Verfahren nach § 3 Abs. 2 Nr. 3 GefStoffV“</a>	TRGS 906 “List of carcinogenic activities or processes according to § 3 para. 2 no. 3 Hazardous Substances Ordinance”
<a href="#">TRGS 910 „Risikobezogenes Maßnahmenkonzept für Tätigkeiten mit krebserzeugenden Gefahrstoffen“ als nationale Regelung, da die Krebsrichtlinie bisher risikobezogene Beurteilungsmaßstäbe nicht vorsah</a>	TRGS 910 “Risk-related concept of measures for activities involving carcinogenic hazardous substances” as a national rule, since the CMD does not yet provide for risk-based assessment standards
<a href="#">BekGS 911 „Fragen und Antworten zum Risiko-konzept gemäß BekGS 910“</a>	Notice on hazardous substances 911 “Questions and answers on the risk concept according to Notice on hazardous substances 910”
<a href="#">TRGS 522 „Raumdesinfektionen mit Formaldehyd“</a>	TRGS 522 “Room disinfections with formaldehyde”
<a href="#">TRGS 513 „Tätigkeiten an Sterilisatoren mit Ethylenoxid und Formaldehyd“</a>	TRGS 513 “Activities on sterilizers with ethylene oxide and formaldehyde”
<a href="#">TRGS 528 „Schweißtechnische Arbeiten“</a>	<a href="#">TRGS 528 “Welding work”</a>

<a href="#">TRGS 558 „Tätigkeiten mit Hochtemperaturwolle“</a>	<a href="#">TRGS 558 “Activities involving high-temperature wool”</a>
<a href="#">TRGS 560 „Luftrückführung bei Tätigkeiten mit krebserzeugenden, erbgutverändernden und fruchtbarkeitsgefährdenden Stäuben“</a>	TRGS 560 “Air recirculation for activities with carcinogenic, mutagenic and fertility-endangering dusts”
<a href="#">TRGS 561 „Tätigkeiten mit krebserzeugenden Metallen und ihren Verbindungen“</a>	<a href="#">TRGS 561 “Activities involving carcinogenic metals and their compounds”</a>
<a href="#">TRGS 554 „Abgase von Dieselmotoren“</a>	TRGS 554 “Exhaust gases from diesel engines”
<a href="#">TRGS 551 „Teer und andere Pyrolyseprodukte aus organischem Material“</a>	TRGS 551 “Tar and other pyrolysis products from organic material”
<a href="#">TRGS 559 „Quarzhaltiger Staub“</a>	<a href="#">TRGS 559 “Mineral dust”</a>
<a href="#">TRGS 552 „Krebserzeugende N-Nitrosamine der Kat. 1A und 1B“</a>	TRGS 552 “Carcinogenic N-nitrosamines of Cat. 1A and 1B”
<a href="#">TRGS 553 „Holzstaub“</a>	TRGS 553 “Wood dust”
<a href="#">TRGS 521 „Abbruch-, Sanierungs- und Instandhaltungsarbeiten mit alter Mineralwolle“</a>	<a href="#">TRGS 521 “Demolition, reconstruction and maintenance work with biopersistent mineral wools”</a>
<a href="#">Beispiele für Technische Regeln für Gefahrstoffe der Reihe 600</a> <a href="#">TRGS 615 „Verwendungsbeschränkungen für Korrosionsschutzmittel, bei deren Einsatz N-Nitrosamine auftreten können“</a>	<a href="#">Examples of Technical Rules for Hazardous Substances of the series 600</a> <a href="#">TRGS 615 “Restrictions on the use of anticorrosion agents whose use can lead to the formation of N-nitrosamines”</a>
<a href="#">TRGS 619 „Substitution für Produkte aus Aluminiumsilikatwolle“</a>	<a href="#">TRGS 619 “Substitute materials for aluminium silicate wool products”</a>



National practical aids (free available) with links:

German	English
<a href="#"><u>Begriffsglossar zu den Regelwerken der Betriebs-sicherheitsverordnung, der Biostoffverordnung und der Gefahrstoffverordnung</u></a>	Glossary of terms relating to the regulations of the Ordinance on Industrial Safety and Health, the Ordinance on Biological Substances and the Ordinance on Hazardous Substances
<a href="#"><u>„GDA Gefahrstoff-Check“: Online-Tool zum Selbstcheck</u></a>  Bestandteil des Arbeitsprogramms „Sicherer Umgang mit krebserzeugenden Gefahrstoffen“ der Gemeinsamen Deutschen Arbeitsschutz-strategie (GDA) Verlinkung auf Praxishilfen von Bund, Ländern, Unfallversicherungsträgern, DGUV und Sozial-partnern	“GDA Hazardous Substance Check”: Online-tool for self-evaluation Part of the work program “Safe Handling of Carcinogenic Substances” of the German Occupational Health and Safety Strategy (GDA) Including links to practical aids of federal government, state authorities, German social accident insurance institutions, DGUV and social partners
<a href="#"><u>Publikationen des Sachgebiets Gefahrstoffe im Fachbereich „Rohstoffe und chemische Industrie“ (FB RCI) der DGUV</u></a>	Publications of the Expert Group “Hazardous Substances” of the Expert Committee “Raw Materials and Chemical Industry” of the DGUV
<a href="#"><u>Publikationen des Sachgebiets Laboratorien im FB RCI der DGUV</u></a>	Publications of the Expert Group “Laboratories” of the Expert Committee Raw Materials and Chemical Industry of the DGUV
<a href="#"><u>Publikationen des Sachgebiets Gesundheits-gefährlicher mineralischer Staub im FB RCI der DGUV</u></a>	Publications of the Expert Group “Hazardous Mineral Dust” of the Expert Committee Raw Materials and Chemical Industry of the DGUV
<a href="#"><u>Publikationen des Fachbereiches „Holz und Metall“ der DGUV</u></a>	Publications of the Expert Committee “Wood and Metal” of the DGUV
<a href="#"><u>Liste der krebserzeugenden, keimzellmutagenen und reproduktionstoxischen Stoffe (KMR-Liste) des Instituts für Arbeitsschutz der DGUV</u></a>	List of carcinogenic, germ cell mutagenic and reproductive toxic substances (KMR-list) of IFA of DGUV
kurz & bündig – KB 024-1 und KB 024-2 der BG RCI	Publication series of BG RCI “kurz & bündig” (short and succinct) KB 024-1 and KB 024-2
<a href="#"><u>Krebserzeugende, keimzellmutagene und reproduktionstoxische Stoffe; Grundlagen</u></a>	Carcinogenic, germ cell mutagenic and reproductive toxic substances
<a href="#"><u>Expositionsergebnis Beschäftigter bei gefähr-denden Tätigkeiten mit krebserzeugenden und keimzellmutagenen Stoffen</u></a>	Exposure list of employees during dangerous activities with carcinogenic and germ cell mutagenic substances

#### 2.3.4. Directive 2009/148/EC

RICHTLINIE 2009/148/EG DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 30. November 2009 über den Schutz der Arbeitnehmer gegen Gefährdung durch Asbest am Arbeitsplatz („Asbestrichtlinie“)

In Verbindung mit der REACH-Verordnung und den beiden Ausnahmetbeständen zu dem Tätigkeitsverbot in Artikel 5 Satz 2 der Asbestrichtlinie (Ausnahme nach Anhang XVII Ziff. 6 Abs. 1 S. 2 REACH-Verordnung, Ausnahme nach Anhang XVII Ziff. 6 Abs. 2 S. 1 REACH-Verordnung)

Transposition in German Law	English
<a href="#"><u>Gesetz zum Schutz vor gefährlichen Stoffen (Chemikaliengesetz – ChemG)</u></a>	<a href="#"><u>Act on the Protection Against Hazardous Substances (Chemicals Act, Chemikaliengesetz – ChemG)</u></a>
<a href="#"><u>Verordnung zum Schutz vor Gefahrstoffen (Gefahrstoffverordnung – GefStoffV)</u></a>	<a href="#"><u>Hazardous Substances Ordinance</u></a>
<a href="#"><u>Verordnung über Verbote und Beschränkungen des Inverkehrbringens und über die Abgabe bestimmter Stoffe, Gemische und Erzeugnisse nach dem Chemikaliengesetz (Chemikalien-Verbotsverordnung - ChemVerbotsV)</u></a>	Order concerning bans and restrictions in terms of placement on the market and on the supply of dangerous substances, mixtures and articles in accordance with the Chemicals Act (ChemVerbotsV)
<a href="#"><u>TRGS 517 „Tätigkeiten mit potentiell asbesthaltigen mineralischen Rohstoffen und daraus hergestellten Gemischen und Erzeugnissen“</u></a>	<a href="#"><u>TRGS 517 “Activities with potentially asbestos-containing minerals and mixtures and products manufactured from same”</u></a>
<a href="#"><u>TRGS 519 „Asbest: Abbruch-, Sanierungs- oder Instandhaltungsarbeiten“</u></a>	<a href="#"><u>TRGS 519 “Asbestos: Demolition, reconstruction or maintenance work”</u></a>



National practical aids (free available) with links:

German	English
<a href="#">DGUV Information 201-012 Emissionsarme Verfahren nach TRGS 519 für Tätigkeiten an asbesthaltigen Materialien</a>	DGUV Information 201-012 Low-emission processes according to TRGS 519 for activities on materials containing asbestos
Sachgebiet Sanierung und Bauwerksunterhalt im Fachbereich „Bauwesen“	Expert Group “Renovation and Building Maintenance” in the Expert Committee “Construction”
<a href="#">Branchenlösung Asbest beim Bauen im Bestand Handlungshilfe für Tätigkeiten an asbesthaltigen Putzen, Spachtelmassen und Fliesenklebern (Stand Oktober 2021)</a>	Concept of Measures for Asbestos in Building Reconstruction Assistance for activities involving asbestos-containing plasters, putties and tile adhesives (as of October 2021)
<a href="#">LASI-Veröffentlichung – LV 45 Leitlinien zur Gefahrstoffverordnung</a> 3. überarbeitete Auflage des Jahres 2012 mit Ergänzung im Abschnitt I „Asbest“ (Stand Oktober 2018)	LASI publication – LV 45 Guidelines on the Hazardous Substances Ordinance 3 <sup>rd</sup> revised edition of 2012 with addition in Section I “Asbestos” (as of October 2018)
<a href="#">Asbest im Haus? (Sicher) Renovieren und Modernisieren.</a> (Ministerium für Arbeit, Gesundheit und Soziales des Landes Nordrhein-Westfalen 2019)	Asbestos in the house? (Safely) Renovate and modernize. (MAGS NRW 2019)
<a href="#">“kurz &amp; bündig” – KB 005 Asbesthaltige Bodenbeläge – Was ist zu tun? (BG RCI 2019)</a>	Publication series of BG RCI “kurz & bündig” (short and succinct) KB 005 Floor coverings containing asbestos - What to do? (BG RCI 2019)
<a href="#">Asbest – Eigenschaften, Vorkommen und Erkennen von Asbest (Landesamt für Umwelt- und Arbeitsschutz des Saarlandes)</a>	Asbestos – Properties, occurrence, and recognition of asbestos (Saarland State Office for Environmental Protection and Occupational Safety)
<a href="#">Leitlinie für die Asbesterkundung zur Vorbereitung von Arbeiten in und an älteren Gebäuden</a> Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (BAuA), Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR) und Umweltbundesamt (UBA) 2020	Guideline for Asbestos Detection in Preparation for Work in and on Older Buildings, Federal Institute for Occupational Safety and Health, Federal Institute for Building, Urban and Spatial Research and Federal Environment Agency

### 2.3.5. Directive 1999/92/EC

RICHTLINIE 1999/92/EG DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 16. Dezember 1999 über Mindestvorschriften zur Verbesserung des Gesundheitsschutzes und der Sicherheit der Arbeitnehmer, die durch explosionsfähige Atmosphären gefährdet werden können (fünfzehnte Einzelrichtlinie im Sinne von Artikel 16 Absatz 1 der Richtlinie 89/391/EWG) („ATEX-Richtlinie“)

Transposition in German Law	English
<a href="#">Verordnung zum Schutz vor Gefahrstoffen (Gefahrstoffverordnung – GefStoffV)</a>	<a href="#">Hazardous Substances Ordinance</a>
<a href="#">Verordnung über Sicherheit und Gesundheitsschutz bei der Verwendung von Arbeitsmitteln (Betriebssicherheitsverordnung – BetrSichV)</a>	Operational Safety Ordinance
<a href="#">Technische Regeln für Gefahrstoffe</a>	<a href="#">Technical Rules for Hazardous Substances</a> (available English translations are unofficial versions, mandatory are the current German versions)
<a href="#">TRGS 720 „Gefährliche explosionsfähige Gemische – Allgemeines“</a>	TRGS 720 “Dangerous explosive mixtures – General information”
<a href="#">TRGS 721 „Gefährliche explosionsfähige Gemische – Beurteilung der Explosionsgefährdung“</a>	TRGS 721 “Dangerously explosive mixtures – Assessment of the explosion hazard”
<a href="#">TRGS 722 „Vermeidung oder Einschränkung gefährlicher explosionsfähiger Gemische“</a>	TRGS 722 “Avoidance or restriction of hazardous explosive mixtures”
<a href="#">TRGS 723 „Gefährliche explosionsfähige Gemische – Vermeidung der Entzündung gefährlicher explosionsfähiger Gemische“</a>	TRGS 723 “Hazardous explosive mixtures - Avoidance of ignition of hazardous explosive mixtures”
<a href="#">TRGS 724 „Gefährliche explosionsfähige Gemische – Maßnahmen des konstruktiven Explosionsschutzes, welche die Auswirkung einer Explosion auf ein unbedenkliches Maß beschränken“</a>	TRGS 724 “Hazardous explosive mixtures - Measures of constructive explosion protection which limit the effect of an explosion to a harmless level”
<a href="#">TRGS 725 „Gefährliche explosionsfähige Atmosphäre – Mess-, Steuer- und Regeleinrichtungen im Rahmen von Explosionsschutzmaßnahmen“</a>	TRGS 725 “Hazardous explosive atmospheres - Measuring, control and regulating equipment in the context of explosion protection measures”
<a href="#">TRGS 727 „Vermeidung von Zündgefahren infolge elektrostatischer Aufladungen“</a>	TRGS 727 “Avoidance of ignition hazards due to electrostatic charges”



National practical aids (free available) with links:

German	English
<a href="#">Ex-Schutz-Wissen der BG RCI</a>	BG RCI's explosion protection knowledge
<a href="#">Publikationen des Sachgebiets Explosionsschutz im Fachbereich „Rohstoffe und chemische Industrie“ der DGUV</a>	Publications of the Expert Group "Explosion Protection" of the Expert Committee Raw Materials and Chemical Industry of the DGUV
<a href="#">LASI-Veröffentlichung LV 35: „Leitlinien zur Betriebs-sicherheitsverordnung“ (2020)</a>	LASI publication LV 35: "Guidelines on the Ordinance on Industrial Safety and Health" (2020)
<a href="#">Leitfaden des VCI zur Betriebssicherheitsverordnung (2015)</a>	VCI guideline on the Ordinance on Industrial Safety and Health (2015)

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### 2.3.6. Directive 92/85/EEC

RICHTLINIE 92/85/EWG DES RATES vom 19. Oktober 1992 über die Durchführung von Maßnahmen zur Verbesserung der Sicherheit und des Gesundheitsschutzes von schwangeren Arbeitnehmerinnen, Wöchnerinnen und stillenden Arbeitnehmerinnen am Arbeitsplatz (zehnte Einzelrichtlinie im Sinne des Artikels 16 Absatz 1 der Richtlinie 89/391/EWG) („Mutterschutzrichtlinie“)

Transposition in German Law	English
<a href="#">Gesetz zum Schutz von Müttern bei der Arbeit, in der Ausbildung und im Studium (Mutterschutzgesetz – MuSchG)</a>	<a href="#">Act on the Protection of Mothers at Work, in Training and at University (Maternity Protection Act - MuSchG)</a>

National practical aids (free available) with links:

German	English
<a href="#">„Leitfaden zum Mutterschutz“ (2021), Bundesministerium für Familie, Senioren, Frauen und Jugend (BMFSF)</a>	<a href="#">“Guide to Maternity Protection” (2021), Federal Ministry for Family Affairs, Senior Citizens, Women and Youth</a>
<a href="#">„Arbeitgeberleitfaden zum Mutterschutz“ (2020), BMFSF</a>	<a href="#">“Employer’s Guide to Maternity Protection” (2020), BMFSF</a>
<a href="#">„Der Mutterschutz: Was für Arbeitgeberinnen und Arbeitgeber wichtig ist“ (2018), Film des BMFSF</a>	<a href="#">“Maternity Protection: What is Important for Employers” (2018), film of BMFSF</a>
<a href="#">„Der Mutterschutz: Was für Arbeitnehmerinnen wichtig ist“ (2018), Film des BMFSF</a>	<a href="#">“Maternity Protection: What is Important for Female Workers” (2018), film of BMFSF</a>
<a href="#">Merkblatt M 039 „Fruchtschädigende Stoffe – Informationen für Mitarbeiterinnen und betriebliche Führungs-kräfte“ (2021) der BG RCI</a>	<a href="#">Leaflet M 039 “Teratogenic Substances – Information for Female Employees and Company Managers” (2021) of BG RCI</a>
<a href="#">Merkblatt A 027 „Mutterschutz im Betrieb“ (2018) der BG RCI</a>	<a href="#">Leaflet A 027 “Maternity protection in the workplace” (2018) of BG RCI</a>
<a href="#">„Mutterschutz im Krankenhaus: Ein Leitfaden“ (2018), Regierungspräsidium Stuttgart</a>	<a href="#">“Maternity Protection in the Hospital: A Guide” (2018), Stuttgart Regional Council</a>

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### 2.3.7. Directive 2012/18/EU

RICHTLINIE 2012/18/EU DES EUROPÄISCHEN PARLAMENTS UND DES RATES vom 4. Juli 2012 zur Beherrschung der Gefahren schwerer Unfälle mit gefährlichen Stoffen, zur Änderung und anschließenden Aufhebung der Richtlinie 96/82/EG des Rates („Seveso-III-Richtlinie“)



Transposition in German Law	English
<a href="#">Zwölfte Verordnung zur Durchführung des Bundes-Immisionsschutzgesetzes (Störfall-Verordnung – 12. BlmSchV)</a>	Hazardous Incident Ordinance (12 <sup>th</sup> BlmSchV)

National practical aids (free available) with links:

German	English
<a href="#">Technische Regeln Anlagensicherheit (TRAS)</a>	Technical rules on plant safety
<a href="#">TRAS 110 „Sicherheitstechnische Anforderungen an Ammoniak-Kälteanlagen“</a>	TRAS 110 "Safety requirements for ammonia refrigeration plants"
<a href="#">TRAS 120 „Sicherheitstechnische Anforderungen an Biogasanlagen“</a>	TRAS 120 "Safety requirements for biogas plants"
<a href="#">TRAS 410 „Erkennen und Beherrschen exothermer chemischer Reaktionen“</a>	TRAS 410 "Recognition and Control of Exothermic Chemical Reactions"
<a href="#">Kommission für Anlagensicherheit: KAS-Publikationen, KAS-Merkblätter, KAS-Leitfäden, Arbeits- und Vollzugshilfen</a>	Commission for Plant Safety: KAS publications, KAS bulletins, KAS guidelines, working and enforcement aids
<a href="#">„Das PAAG- / HAZOP-Verfahren und weitere praxisbewährte Methoden“</a>	"The PAAG / HAZOP procedure and other tried and tested methods"

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### 2.4. ITALY

#### 2.4.1. Directive 89/391/EEC

DIRETTIVA 89/391/CEE DEL CONSIGLIO, del 12 giugno 1989, concernente l'attuazione di misure volte a promuovere il miglioramento della sicurezza e della salute dei lavoratori durante il lavoro (Direttiva quadro)

Transposition in Italian Law	English
<b>Transposition deadline:</b> 31/12/1992 <a href="#">Decreto legislativo del 19/09/1994 n. 626, attuazione delle direttive 89/391/CEE, 89/654/CEE, 89/655/CEE, 89/656/CEE, 90/269/CEE, 90/270/CEE, 90/394/CEE e 90/679/CEE riguardanti il miglioramento della sicurezza e della salute dei lavoratori sul luogo di lavoro GU Serie Generale n.265 del 12-11-1994 - Suppl. Ordinario n. 141</a>	Legislative Decree of 19/09/1994 n. 626, implementation of directives 89/391/CEE, 89/654/CEE, 89/655/CEE, 89/656/CEE, 90/269/CEE, 90/270/CEE, 90/394/CEE, and 90/679/EEC concerning the improvement of the safety and health of workers in the workplace. Gazzetta Ufficiale Serie Generale n. 265 del 12-11-1994 – Suppl. Ordinario n. 141
<a href="#">Il DL 626/94 è stato abrogato e sostituito dal Decreto Legislativo L 9 Aprile 2008, n. 81: Attuazione dell'articolo 1 della legge 3 agosto 2007, n. 123, in materia di tutela della salute e della sicurezza nei luoghi di lavoro (Gazzetta Ufficiale n. 101 del 30 aprile 2008)</a>	DL 626/94 has been repealed by Legislative Decree no. 81 of April 9 <sup>th</sup> , 2008: Implementation of article 1 of law no. 123, concerning the protection of health and safety in the workplace (Official Gazette n. 101 of 30 April 2008)
<a href="#">La versione aggiornata a Novembre 2020 del Dlgs 81/2008</a>	Updated version in November 2020 of Legislative Decree 9 April 2008 n. 81

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National practical aids (free available) with links:

Italian	English
<a href="#">Agenti chimici pericolosi – INAIL 2012 – Consulenza Tecnica Accertamenti Rischi e Prevenzione (CONTARP) – ISBN 978-88-7484-279-7</a>	Dangerous chemical agents – INAIL 2012 – Technical Consultancy Risk Assessment and Prevention (CONTARP) – ISBN 978-88-7484-279-7
<a href="#">Pagina delle basi di dati dell'Istituto Superiore di Sanità</a>	Page of the databases of the National Institute of Health



#### 2.4.2. Directive 98/24/EC

DIRETTIVA 98/24/CE DEL CONSIGLIO del 7 aprile 1998 sulla protezione della salute e della sicurezza dei lavoratori contro i rischi derivanti da agenti chimici durante il lavoro (quattordicesima direttiva particolare ai sensi dell'articolo 16, paragrafo 1, della direttiva 89/391/CEE)

Transposition in Italian Law	English
Decreto Legislativo 2 Febbraio 2002, n. 25, Attuazione della direttiva 98/24/CE sulla protezione della salute e della sicurezza dei lavoratori contro i rischi derivanti da agenti chimici durante il lavoro <a href="#">Gazzetta Ufficiale n. 57 del 8 marzo 2002 – Supplemento Ordinario n. 40</a>	Legislative Decree 2 February 2002, n. 25, Implementation of Directive 98/24/EC on the protection of the health and safety of workers against the risks from chemical agents at work Official Gazette no. 57 of 8 March 2002 – Ordinary Supplement n. 40
Il DL 25/2002 è stato accorpato nel DLgs 9 Aprile 2008, n. 81 nel TITOLO IX, SOSTANZE PERICOLOSE, Capo I Protezione da agenti chimici – Art. 221-232	DL 25/2002 was merged into the legislative Decree 9 April 2008, n. 81 in TITLE IX, DANGEROUS SUBSTANCES, Chapter I Protection from chemical agents – Art. 221-265

National practical aids (free available) with links:

Italian	English
<a href="#">Linee di Indirizzo per l'applicazione di un sistema di gestione della salute e sicurezza sul lavoro per l'industria chimica – INAIL – 2015</a>	Guidelines for the Implementation of an Occupational Health and Safety Management System for the Chemical Industry INAIL – 2015
LINEE DI INDIRIZZO SGSL-GP Sistema di Gestione della Salute e della Sicurezza dei Lavoratori per le Aziende del settore Gomma Plastica – INAIL – Edizione 2014 – ISBN 978-88-7484-422-7	GUIDELINES SGSL-GP Occupational Health and Safety Management System for Companies in the Rubber Plastic Sector – INAIL – Edition 2014 – ISBN 978-88-7484-422-7
<a href="#">RESPONSIBLE CARE 26° RAPPORTO ANNUALE 2020 – Federchimica - Confindustria</a>	RESPONSIBLE CARE 26 <sup>th</sup> ANNUAL REPORT 2020 – Federchimica – Confindustria

#### 2.4.3. Directive 2004/37/EC

DIRETTIVA 2004/37/CE DEL PARLAMENTO EUROPEO E DEL CONSIGLIO del 29 aprile 2004 sulla protezione dei lavoratori contro i rischi derivanti da un'esposizione ad agenti cancerogeni o mutageni durante il lavoro (sesta direttiva particolare ai sensi dell'articolo 16, paragrafo 1, della direttiva 89/391/CEE del Consiglio)

Transposition in Italian Law	English
La direttiva 2004/37/EC “protezione dei lavoratori dai rischi correlati all'esposizione cancerogeni e mutageni sul lavoro” è stata recepita nell'ordinamento italiano nel T.U. Sicurezza (D.Lgs. n. 81/2008 e s.m.i., al Titolo IX – Capo II, Art 233-245)	Directive 2004/37/EC was transposed into Italian law in the Consolidated Law for Security (Legislative Decree No. 81/2008 and subsequent amendments, Title IX – Chapter II, Art 233-245)

National practical aids (free available) with links:

Italian	English
<a href="#">Agenti cancerogeni e mutageni – Lavorare sicuri – Edizioni – INAIL Consulenza Tecnica Accertamenti Rischi e Prevenzione (CONTARP) – maggio 2015 – ISBN 978-88-7484-279-7</a>	Carcinogens and mutagens – Work safe – Editions – INAIL Technical Consultancy Risk Assessment and Prevention (CONTARP) – INAIL Editions – May 2015
<a href="#">Banca dati cancerogeni (Bdc)</a>	Carcinogenic database (Bdc)
<a href="#">Matrice delle esposizioni ad agenti cancerogeni (Matline)</a>	Matrix of exposures to carcinogens (Matline)



#### 2.4.4. Directive 2009/148/EC

DIRETTIVA 2009/148/CE DEL PARLAMENTO EUROPEO E DEL CONSIGLIO del 30 novembre 2009 sulla protezione dei lavoratori contro i rischi connessi con un'esposizione all'amianto durante il lavoro

Transposition in Italian Law	English
T.U. Sicurezza (D.Lgs. n. 81/2008 e s.m.i.) – Titolo IX – Capo III, Art 246-261)	Consolidated Law on Security (Legislative Decree No. 81/2008 and subsequent amendments) – Title IX – Chapter III, Art 246-261)

National practical aids (free available) with links:

Italian	English
<a href="#">AMIANTO NATURALE E AMBIENTI DI LAVORO</a> <a href="#">Indicazioni operative per la prevenzione – INAIL – Dipartimento innovazioni tecnologiche e sicurezza degli impianti, prodotti ed insediamenti antropici (Dit)</a> <a href="#">Consulenza tecnica accertamento rischi e prevenzione (Contarp)</a>	NATURAL ASBESTOS AND WORK ENVIRONMENTS Operational indications for prevention – INAIL – Department of technological innovations and safety of plants, products and anthropogenic settlements (Dit) Technical consultancy for risk assessment and prevention (Contarp)
© 2021 INAIL – ISBN 978-88-7484-682-5 Tipolitografia INAIL – Milano, maggio 2021	© 2021 INAIL – ISBN 978-88-7484-682-5 Tipolitografia INAIL – Milano, May 2021
<a href="#">BONIFICA DA AMIANTO: ITER PROCEDURALI E FIGURE PROFESSIONALI COINVOLTE</a> <a href="#">Edizione 2020 INAIL – Direzione centrale pianificazione e comunicazione Piazzale Giulio Pastore, 6 – 00144 Roma</a>	REMEDIATION FROM ASBESTOS: PROCEDURAL PROCEDURES AND PROFESSIONALS INVOLVED 2020 Edition INAIL – Central Planning and Communication Department Piazzale Giulio Pastore, 6 – 00144 Rome ISBN 978-88-7484-661

#### 2.4.5. Directive 1999/92/EC

DIRETTIVA 1999/92/CE DEL PARLAMENTO EUROPEO E DEL CONSIGLIO, del 16 dicembre 1999, relativa alle prescrizioni minime per il miglioramento della tutela della sicurezza e della salute dei lavoratori che possono essere esposti al rischio di atmosfere esplosive (quindicesima direttiva particolare ai sensi dell'articolo 16, paragrafo 1, della direttiva 89/391/CEE)

Transposition in Italian Law	English
<a href="#">La direttiva 1999/92/CE è stata recepita con il DECRETO LEGISLATIVO 12 giugno 2003, n. 233, Attuazione della direttiva 1999/92/CE relativa alle prescrizioni minime per il miglioramento della tutela della sicurezza e della salute dei lavoratori esposti al rischio di atmosfere esplosive. GU Serie Generale n.197 del 26-08-2003</a>	Directive 1999/92/EC was implemented with Legislative Decree 12 June 2003, n. 233, Implementation of Directive 1999/92/EC relating to the minimum requirements for improving the protection of the safety and health of workers exposed to the risk of explosive atmospheres. GU General Series n.197 of 08.26.2003

National practical aids (free available) with links:

Italian	English
<a href="#">Il rischio di esplosione, misure di protezione ed implementazione delle direttive Atex 94/9/CE e 99/92/CE – Edizioni: INAIL – dicembre 2013 © 2013 INAIL</a> ISBN 978-88-7484-332-9 Tipolitografia INAIL – Milano, dicembre 2013	The risk of explosion, protection measures and implementation of the Atex directives 94/9/EC and 99/92/EC – Editions: INAIL – December 2013 © 2013 INAIL ISBN 978-88-7484-332-9 INAIL Typolithography – Milan, December 2013
<a href="#">Gli infortuni mortali causati da esplosioni</a> ISBN 978-88-7484-646-7 – © 2020 INAIL	Fatal injuries caused by explosions. ISBN 978-88-7484-646-7 – © 2020 INAIL
<a href="#">La prevenzione delle esplosioni da polvere - caso studio: le attività molitorie</a> <a href="#">Agenzia Regionale per la Protezione Ambientale del Piemonte - ED. 0, REV. 1, dicembre 2015</a>	The prevention of dust explosions - case study: milling activities Regional Agency for Environmental Protection of Piemonte – ED. 0, REV. 1, December 2015



#### 2.4.6. Directive 92/85/EEC

Direttiva 92/85/CEE del Consiglio, del 19 ottobre 1992, concernente l'attuazione di misure volte a promuovere il miglioramento della sicurezza e della salute sul lavoro delle lavoratrici gestanti, puerpe o in periodo di allattamento (decima direttiva particolare ai sensi dell'articolo 16, paragrafo 1 della direttiva 89/391/CEE)

Transposition in Italian Law	English
La protezione delle madri lavoratrici è regolata dal Decreto Legislativo 151/2001 e dal Decreto Legislativo 81/08:  <a href="#">Decreto Legislativo 26 marzo 2001, n. 151: Testo unico delle disposizioni legislative in materia di tutela e sostegno della maternità e della paternità, a norma dell'articolo 15 della legge 8 marzo 2000, n. 53., Gazzetta Ufficiale n. 96 del 26 aprile 2001 – Supplemento Ordinario n. 93</a>	The protection of working mothers is regulated by Legislative Decree 151/2001 and by Legislative Decree 81/08  Legislative Decree 26 March 2001, n. 151: Consolidated text of the legislative provisions concerning the protection and support of maternity and paternity, in accordance with article 15 of the law of 8 March 2000, n. 53, Official Gazette no. 96 of 26 April 2001 – Ordinary Supplement n. 93
Decreto Legislativo 81/08 art. 28,41,182,183,190,202, allegato IV (1.11.4), Allegato XLVI (2)	Legislative Decree 81/08 art. 28,41,182,183,190,202, Annex IV (1.11.4), Annex XLVI (2)

National practical aids (free available) with links:

Italian	English
<a href="#">LA LAVORATRICE IN GRAVIDANZA – Il rischio, La prevenzione, La tutela – Edizione 2002</a>	THE PREGNANT WORKER – risk, prevention, protection – Edition 2002
<a href="#">Linee guida per la tutela delle lavoratrici madri nel settore della sanità - Regione FVG Servizio Sanitario Nazionale Regione Autonoma Friuli Venezia Giulia Direzione Centrale Salute, Politiche Sociali E Disabilità</a>	Guidelines for the protection of working mothers in the health sector – FVG Region National Health Service Autonomous Region of Friuli Venezia Giulia Central Directorate for Health, Social Policies and Disability

#### 2.4.7. Directive 2012/18/EU

DIRETTIVA 2012/18/UE DEL PARLAMENTO EUROPEO E DEL CONSIGLIO del 4 luglio 2012 sul controllo del pericolo di incidenti rilevanti connessi con sostanze pericolose, recante modifica e successiva abrogazione della direttiva 96/82/CE del Consiglio

Transposition in Italian Law	English
<a href="#">Decreto Legislativo 26 giugno 2015, n. 105 – Attuazione della direttiva 2012/18/UE relativa al controllo del pericolo di incidenti rilevanti connessi con sostanze pericolose, GU Serie Generale n.161 del 14-07-2015 – Suppl. Ordinario n. 38</a>	Legislative Decree 26 June 2015, n. 105 – Implementation of Directive 2012/18/EU relating to the control of the danger of major accidents connected with dangerous substances, GU General Series n. 161 of 14-07-2015 – Ordinary Suppl. n. 38

National practical aids (free available) with links:

Italian	English
<a href="#">Settore Seveso: contesto normativo e caratterizzazione statistica degli infortuni. INAIL – Quaderni di ricerca</a>	Seveso sector: regulatory context and statistical characterization of accidents INAIL - Research papers
<a href="#">Le attività a rischio di incidente rilevante in Italia – Corpo Nazionale dei Vigili del Fuoco – marzo 2013</a>	Activities at risk of major accident in Italy – National Fire Brigade – March 2013
<a href="#">Valutazione sintetica dell'adeguatezza del programma di gestione dell'invecchiamento delle attrezzature negli stabilimenti Seveso – Linea guida – Seconda edizione marzo 2021</a>	Summary assessment of the adequacy of the aging management program of equipment in the Seveso plants – guidelines – Second edition March 2021
<a href="#">Inventario nazionale degli stabilimenti a rischio di incidente rilevante connessi con sostanze pericolose – Decreto legislativo 26 giugno 2015, n. 105 – Reperimento Direttiva 2012/18/UE "Seveso Ter"</a>	National inventory of plants at risk of major accidents connected with dangerous substances – Legislative Decree 26 June 2015, n. 105 – Transposition of Directive 2012/18/EU "Seveso Ter"
<a href="#">Mappatura dei pericoli di incidente rilevante in Italia – Ed. 2013 – ISPRA, Rapporti 181/2013 ISBN 978-88-448-0613-2</a>	Mapping of major accident hazards in Italy – Ed. 2013 – ISPRA, Reports 181/2013 ISBN 978-88-448-0613-2



## 2.5. SPAIN



### 2.5.1. Directive 89/391/EEC

DIRECTIVA 89/391/CEE DEL CONSEJO, de 12 de junio de 1989, relativa a la aplicación de medidas para promover la mejora de la seguridad y de la salud de los trabajadores en el trabajo ("Directiva Marco")

Transposition in Spanish Law	English
<a href="#">Ley 31/1995 de 8 de noviembre, de Prevención de Riesgos Laborales. Ley de PRL</a>	Law 31/1995, of November 8, on Occupational Risk Prevention
<a href="#">Instrucción del 26 de febrero de 1996, de la Secretaría de Estado para la Administración Pública para la aplicación de la Ley 31/1995, de 8 de noviembre, de Prevención de Riesgos Laborales en la Aministración del Estado.</a>	Instruction of 26 February 1996 implementing the requirements set forth in Law 31/1995 from the Government
<a href="#">Real Decreto 39/1997, de 17 de enero, por el que se aprueba el Reglamento de los Servicios de Prevención.</a>	Royal Decree 39/1997 of 17 January 1997 establishing the regulations of Prevention Services
<a href="#">Real Decreto Legislativo 5/2000, de 4 de agosto, por el que se aprueba el texto refundido de la Ley sobre Infracciones y Sanciones en el Orden Social.</a>	Royal Legislative Decree 5/2000 of 4 August 2000 approving the Revised Law on Infringements and fines in the social legal order
<a href="#">Real Decreto 707/2002, de 19 de julio, por el que se aprueba el Reglamento sobre el procedimiento administrativo especial de actuación de la Inspección de Trabajo y Seguridad Social y para la imposición de medidas correctoras de incumplimientos en materia de prevención de riesgos laborales en el ámbito de la Administración General del Estado.</a>	Royal Decree 707/2002 of 19 July 2002, establishing the LSSI procedures and the corrective measures on preventing breaches concerning occupational risks in the General State Administration
<a href="#">Ley 54/2003, de 12 de diciembre, de reforma del marco normativo de la prevención de riesgos laborales.</a>	Law 54/2003 of 12 December on the reform of the legal framework for the prevention of occupational risks
<a href="#">Real Decreto 171/2004, de 30 de enero, por el que se desarrolla el artículo 24 de la Ley 31/1995, de 8 de noviembre, de Prevención de Riesgos Laborales, en materia de coordinación de actividades empresariales.</a>	Royal Decree 171/2004 of 30 January 2004, establishing regulations concerning business activities coordination
<a href="#">Real Decreto 1299/2006, de 10 de noviembre, por el que se aprueba el cuadro de enfermedades profesionales en el sistema de la Seguridad Social y se establecen criterios para su notificación y registro.</a>	Royal Decree 1299/2006 of 10 november 2006, which updates the Schedule of occupational disease and sets out the criteria for their notification and registration

[Real Decreto 393/2007, de 23 de marzo, por el que se aprueba la Norma Básica de Autoprotección de los centros, establecimientos y dependencias dedicados a actividades que puedan dar origen a situaciones de emergencia.](#)

Royal Decree 393/2007 of 23 March 2007, adopting the Basic Regulation on Self-protection, in centres, establishments and facilities involving in activities that could give rise to emergency situations

[Ley 20/2007, de 11 de julio, del Estatuto del trabajo autónomo.](#)

Law 20/2007 of 11 July, concerning self-employed workers

[Real Decreto 67/2010, de 29 de enero, de adaptación de la legislación de Prevención de Riesgos Laborales a la Administración General del Estado.](#)

Royal Decree 67/2010 of 29 January 2010 concerning OSH regulations at the General State Administration

[Real Decreto 843/2011, de 17 de junio, por el que se establecen los criterios básicos sobre la organización de recursos para desarrollar la actividad sanitaria de los servicios de prevención.](#)

Royal Decree 843/2011 of 17 June 2011 establishing the criteria for the medical surveillance organization in prevention services

National practical aids (free available) with links:

Spanish	English
<a href="#">Estadística de accidentes de trabajo</a>	Statistics on work accidents and professional illness
<a href="#">Prevención 10. Plataforma online del INSST</a>	Prevention 10. Online platform of the INSST to help SME
<a href="#">Guía Técnica para la integración de la prevención de riesgos laborales en el sistema general de gestión de la empresa</a>	Technical Guide on the integration of risk prevention
<a href="#">Directrices básicas para el desarrollo de la prevención de los riesgos laborales en la empresa</a>	Basic guidelines for the development of occupational risk prevention in the company
<a href="#">Manual para la evaluación y prevención de riesgos ergonómicos y psicosociales en PYME</a>	Manual for the prevention and assessment of ergonomic and psychosocial risks in SMEs
<a href="#">Guía Procedimental para la Investigación de los Accidentes de Trabajo</a>	LSSI Guidelines on accidents at work investigation



## 2.5.2. Directive 98/24/EC

DIRECTIVA 98/24/CE DEL CONSEJO de 7 de abril de 1998 relativa a la protección de la salud y la seguridad de los trabajadores contra los riesgos relacionados con los agentes químicos durante el trabajo (decimocuarta Directiva específica con arreglo al apartado 1 del artículo 16 de la Directiva 89/391/CEE)

Transposition in Spanish law	English
<a href="#">Real Decreto 374/2001, de 6 de abril, sobre la protección de la salud y seguridad de los trabajadores contra los riesgos relacionados con los agentes químicos durante el trabajo.</a>	Royal Decree 374/2001 of 6 April 2001 on workers protection against chemical agents
<a href="#">Real Decreto 656/2017, de 23 de junio, por el que se aprueba el Reglamento de almacenamiento de productos químicos y sus instrucciones técnicas complementarias MIE APQ 0 a 10.</a>	Royal Decree 656/2017 of 6 April 2017, regulating storage of chemicals and their complementary technical instructions

National practical aids (free available) with links:

Spanish	English
<a href="#">Portal de los Riesgos químicos</a>	Chemical risk Platform where relevant information concerning chemical risk is available
<a href="#">Guía Técnica para la evaluación y prevención de los riesgos relacionados con los agentes químicos presentes en los lugares de trabajo</a>	Technical Guide for the evaluation and prevention of risks related to chemical agents in the workplace
<a href="#">Guía Técnica de aplicación del Reglamento de almacenamiento de productos químicos y sus instrucciones técnicas complementarias</a>	Technical guide on application regulating storage of chemicals and their complementary technical instructions
<a href="#">Límites de Exposición Profesional para Agentes Químicos en España</a>	Occupational exposure value limits for chemical agents in Spain
<a href="#">Calculadores – Herramientas de prevención para evaluar la exposición a agentes químicos</a>	Calculators – Prevention tools to assess occupational exposure to chemical agents  The Calculator for chemical agents assessment according the standard UNE-EN 689:1918 is available in English

## 2.5.3. Directive 2004/37/EC

DIRECTIVA 2004/37/CE DEL PARLAMENTO EUROPEO Y DEL CONSEJO de 29 de abril de 2004 relativa a la protección de los trabajadores contra los riesgos relacionados con la exposición a agentes carcinógenos o mutágenos durante el trabajo (sexta Directiva específica con arreglo al apartado 1 del artículo 16 de la Directiva 89/391/CEE del Consejo)

Transposition in Spanish Law	English
<a href="#">Real Decreto 665/1997, de 12 de mayo, sobre la protección de los trabajadores contra los riesgos relacionados con la exposición a agentes cancerígenos durante el trabajo.</a>	Royal Decree 665/1997, of May 12, on the protection of workers against risks related to exposure to carcinogens at work.
<a href="#">Real Decreto 1154/2020, de 22 de diciembre, por el que se modifica el Real Decreto 665/1997, de 12 de mayo, sobre la protección de los trabajadores contra los riesgos relacionados con la exposición a agentes cancerígenos durante el trabajo.</a>	Royal Decree 1154/2020, of 22 December, modifying the Royal Decree 665/1997 of 12 May on the protection of workers from the risks to exposure to carcinogens at work

National practical aids (free available) with links:

Spanish	English
<a href="#">Guía técnica para la evaluación y prevención de los riesgos relacionados con la exposición a agentes cancerígenos o mutágenos durante el trabajo</a>	Technical Guide on the evaluation and prevention of risks related to occupational exposure to carcinogens or mutagens
<a href="#">Listado de compuestos Cancerígenos y Mutágenos categorías 1A y 1B</a>	List of carcinogenic and mutagenic compounds, category 1A and 1B
<a href="#">Guía para el control del riesgo por exposición a SÍLICE CRISTALINA RESPIRABLE</a>	Technical Guide on the assessment and control of risks related to exposure to silica

[NTP 465: Sustancias cancerígenas: criterios para su clasificación](#)

PTN 465: Carcinogenic substances: Criteria for their classification



#### 2.5.4. Directive 2009/148/EC

DIRECTIVA 2009/148/CE DEL PARLAMENTO EUROPEO Y DEL CONSEJO de 30 de noviembre de 2009 sobre la protección de los trabajadores contra los riesgos relacionados con la exposición al amianto durante el trabajo

Transposition in Spanish Law	English
<a href="#">Real Decreto 396/2006, de 31 de marzo, por el que se establecen las disposiciones mínimas de seguridad y salud aplicables a los trabajos con riesgo de exposición al amianto.</a>	Royal Decree 396/2006 of 31 March 2006, establishing minimum health and safety requirements for the protection of workers from risk of exposure to asbestos, incorporates the requirements established in Directive 2003/18/EC into Spanish regulations

National practical aids (free available) with links:

Spanish	English
<a href="#">Guía Técnica para la evaluación y prevención de los riesgos relacionados con la exposición al amianto</a>	Technical Guide on the evaluation and prevention of risks related to asbestos exposure
<a href="#">NTP 815: Planes de trabajo con amianto: orientaciones prácticas para su realización</a>	PTN 815: Practical guidance on working plans with asbestos
<a href="#">NTP 862: Operaciones de demolición, retirada o mantenimiento con amianto: ejemplos prácticos</a>	PTN 862: Demolition, elimination and maintenance operations with materials containing asbestos: practical examples
<a href="#">NTP 953: Trabajos con amianto friable: diseño y montaje de un confinamiento dinámico (I)</a>	PTN 953: Work with friable asbestos: Designing and assembling a dynamic containment (I)
<a href="#">NTP 954: Trabajos con amianto friable: diseño y montaje de un confinamiento dinámico (II)</a>	PTN 954: Work with friable asbestos: Designing and assembling a dynamic containment (II)
<a href="#">NTP 463: Exposición a fibras de amianto en ambientes interiores</a>	PTN 463: Exposure to asbestos fibers in indoor air
<a href="#">NTP 632: Detección de amianto en edificios (I): aspectos básicos</a>	PTN 632: Asbestos detection in buildings (I): Basic aspects
<a href="#">NTP 633: Detección de amianto en edificios (II): identificación y metodología de análisis</a>	PTN 633: Asbestos detection in buildings (II): Identification and methodology of analysis

[NTP 796: Amianto: planes de trabajo para operaciones de retirada o mantenimiento](#)

PTN 796: Working plan for removing or maintenance of asbestos materials

[Protocolos de vigilancia sanitaria específica Amianto](#)

Protocol for health survey related to asbestos exposition

[Guía de Actuación Inspector para control del Cumplimiento de la Normativa sobre Riesgo de Amianto](#)

LSSI Guidelines on Asbestos risks regulations compliance

#### 2.5.5. Directive 1999/92/EC

DIRECTIVA 1999/92/CE DEL PARLAMENTO EUROPEO Y DEL CONSEJO, de 16 de diciembre de 1999, relativa a las disposiciones mínimas para la mejora de la protección de la salud y la seguridad de los trabajadores expuestos a los riesgos derivados de atmósferas explosivas (decimoquinta Directiva específica con arreglo al apartado 1 del artículo 16 de la Directiva 89/391/CEE del Consejo) (ATEX Directiva)

Transposition in Spanish Law	English
<a href="#">Real Decreto 681/2003, de 12 de junio, sobre la protección de la salud y la seguridad de los trabajadores expuestos a los riesgos derivados de atmósferas explosivas en el lugar de trabajo.</a>	Royal Decree 681/2003 of 18 June 2003 on protection of workers against risks from explosive atmospheres

National practical aids (free available) with links:

Spanish	English
<a href="#">Guía Técnica para la evaluación y prevención de riesgos derivados de atmósferas explosivas en el lugar de trabajo</a>	Technical Guide on the assessment and risk prevention of explosive atmospheres at the work place
<a href="#">NTP 876: Evaluación de los riesgos específicos derivados de las atmósferas explosivas (ATEX)</a>	PTN 876: Risk assessment in explosive atmospheres
<a href="#">NTP 630: Riesgo de incendio y explosión en atmósferas sobreoxigenadas</a>	PTN 630: Fire and explosion hazards in oxygen enriched atmospheres
<a href="#">NTP 826: El Documento de protección contra explosiones (DPCE)</a>	PTN 826: Protection against Explosions Document



## 2.5.6. Directive 92/85/EEC

DIRECTIVA 92/85/CEE DEL CONSEJO, de 19 de octubre de 1992, relativa a la aplicación de medidas para promover la mejora de la seguridad y de la salud en el trabajo de la trabajadora embarazada, que haya dado a luz o en período de lactancia (décima Directiva específica con arreglo al apartado 1 del artículo 16 de la Directiva 89/391/CEE)

Transposition in Spanish Law	English
<a href="#">Ley 31/1995, de 8 de noviembre, de prevención de Riesgos Laborales.</a>	Law 31/1995 of 8 November 1995, on the Prevention of work-related Risks
<a href="#">Real Decreto 298/2009, de 6 de marzo, por el que se modifica el Real Decreto 39/1997, de 17 de enero, por el que se aprueba el Reglamento de los Servicios de Prevención, en relación con la aplicación de medidas para promover la mejora de la seguridad y de la salud en el trabajo de la trabajadora embarazada, que haya dado a luz o en período de lactancia.</a>	Royal Decree 298/2009 of 6 March 2009, modifying Royal Decree 39/1997 in order to adapt this regulation to pregnant workers conditions
<a href="#">Real Decreto 295/2009, de 6 de marzo, por el que se regulan las prestaciones económicas del sistema de la Seguridad Social por maternidad, paternidad, riesgo durante el embarazo y riesgo durante la lactancia natural.</a>	Royal Decree 295/2009 of 6 March 2009, regulating the Social Security benefits system concerning maternity, paternity, pregnancy risks and breastfeeding risks

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## 2.5.7. Directive 2012/18/EU

DIRECTIVA 2012/18/UE DEL PARLAMENTO EUROPEO Y DEL CONSEJO de 4 de julio de 2012 relativa al control de los riesgos inherentes a los accidentes graves en los que intervengan sustancias peligrosas y por la que se modifica y ulteriormente deroga la Directiva 96/82/CE

Transposition in Spanish Law	English
<a href="#">Real Decreto 840/2015, de 21 de septiembre, por el que se aprueban medidas de control de los riesgos inherentes a los accidentes graves en los que intervengan sustancias peligrosas.</a>	Royal Decree 840/2015 of 21 September 2015 on approving control measures to prevent serious accidents involving hazard substances
<a href="#">Real Decreto 1196/2003, de 19 de septiembre, por el que se aprueba la Directriz básica de protección civil para el control y planificación ante el riesgo de accidentes graves en los que intervienen sustancias peligrosas.</a>	Royal Decree 1196/2003 of 19 September 2003 on approving the Basic Guideline to civil protection against serious accidents involving hazard substances
<a href="#">Real Decreto 1070/2012, de 13 de julio, por el que se aprueba el Plan estatal de protección civil ante el riesgo químico.</a>	Royal Decree 1070/2012 of 13 July 2012 on approving the State Plan for civil protection against chemical hazard
<a href="#">Real Decreto 393/2007, de 23 de marzo, por el que se aprueba la Norma Básica de Autoprotección de los centros, establecimientos y dependencias dedicados a actividades que puedan dar origen a situaciones de emergencia.</a>	Royal Decree 393/2007 of 23 March 2007 on approving the Standard Rule for Self-Protection of the working places in which can happen emergency situations

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National practical aids (free available) with links:

Spanish	English
<a href="#">NTP 664: Lactancia materna y vuelta al trabajo</a>	PTN 664: Breastfeeding and returning to work.
<a href="#">NTP 914: Embarazo, lactancia y trabajo: promoción de la salud</a>	PTN 914: Pregnancy, breastfeeding and work: health promotion.
<a href="#">NTP 915: Embarazo, lactancia y trabajo: vigilancia de la salud</a>	PTN 915: Pregnancy, breastfeeding and work: medical surveillance.

National practical aids (free available) with links:

Spanish	English
<a href="#">Guía Técnica para la elaboración de un plan de autoprotección.</a>	Technical Guide on the elaboration of a Self-Protection Plan



## Definitions

**Worker** (see Directive 89/391/EEC "OSH Framework Directive")

any person employed by an employer, including trainees and apprentices, but excluding domestic servants.

**Employer** (see Directive 89/391/EEC "OSH Framework Directive")

any natural or legal person who has an employment relationship with the worker and has responsibility for the undertaking and/or establishment.

**Workers' representative with specific responsibility for the safety and health of workers** (see Directive 89/391/EEC "OSH Framework Directive")

any person elected, chosen or designated in accordance with national laws and/or practices to represent workers when problems arise relating to the safety and health protection of workers at work.

**Prevention** (see Directive 89/391/EEC "OSH Framework Directive")

all the steps or measures taken or planned at all stages of work in the undertaking to prevent or reduce occupational risks.

**Chemical agent** (see Directive 98/24/EC "Chemical Agents Directive")

any chemical element or compound, on its own or admixed, as it occurs in the natural state or as produced, used, or released, including release as waste, by any work activity, whether or not produced intentionally and whether or not placed on the market.

**Hazardous chemical agent** (see Directive 98/24/EC "Chemical Agents Directive")

- any chemical agent which meets the criteria for classification as hazardous within any physical and/or health hazard classes laid down in CLP-Regulation and
- any chemical agent which, whilst not meeting the criteria for classification according to the CLP-regulation, because of its physico-chemical, chemical, or toxicological properties and the way it is used or is present in the workplace, present a risk to the safety and health of workers, including any chemical agent that is assigned an occupational exposure limit value.

**Activity involving chemical agents** (see Directive 98/24/EC "Chemical Agents Directive")

any work in which chemical agents are used, or are intended to be used, in any process, including production, handling, storage, transport or disposal and treatment, or which result from such work.

**Occupational exposure limit value** (see Directive 98/24/EC "Chemical Agents Directive")

the limit of the time-weighted average of the concentration of a chemical agent in the air within the breathing zone of a worker in relation to a specified reference period, unless otherwise specified.

**Biological limit value** (see Directive 98/24/EC "Chemical Agents Directive")

the limit of the concentration in the appropriate biological medium of the relevant agent, its metabolite, or an indicator of effect.

**Health surveillance** (see Directive 98/24/EC "Chemical Agents Directive" and see Directive 2022/431 amending Directive 2004/37/EC "Carcinogens and Mutagens Directive")

the assessment of an individual worker to determine the state of health of that individual, as related to exposure to specific chemical agents at work respectively as related to exposure to specific carcinogens, mutagens or reprotoxic substances at work.

**Hazard** (see Directive 98/24/EC "Chemical Agents Directive")

the intrinsic property of a chemical agent with the potential to cause harm.

**Risk** (see Directive 98/24/EC "Chemical Agents Directive")

the likelihood that the potential for harm will be attained under the conditions of use and/or exposure.

**Carcinogen** (see Directive 2004/37/EC "Carcinogens and Mutagens Directive")

- substances or mixtures classified as category 1A and 1B carcinogens in accordance with the CLP regulation.
- substances, mixtures, or processes listed in Annex I.

**Mutagen** (see Directive 2004/37/EC "Carcinogens and Mutagens Directive")

substances or mixtures classified as category 1A and 1B mutagens, in accordance with the CLP regulation.

**Reprotoxic Substance** (see Directive 2022/431 amending Directive 2004/37/EC "Carcinogens and Mutagens Directive")

substance or mixture classified as a category 1A or 1B reproductive toxicant, in accordance with the CLP regulation.

**Non-threshold Reprotoxic Substance** (see Directive 2022/431 amending Directive 2004/37/EC "Carcinogens and Mutagens Directive")

reprotoxic substance to which there is no safe level of exposure for workers' health and which is identified as such in the notation column of Annex III.

**Threshold Reprotoxic Substance** (see Directive 2022/431 amending Directive 2004/37/EC "Carcinogens and Mutagens Directive")

reprotoxic substance for which a safe level of exposure exists below which there is no risk to workers' health and which is identified as such in the notation column of Annex III.

**Limit value** (see Directive 2022/431 amending Directive 2004/37/EC "Carcinogens and Mutagens Directive")

limit value means, unless otherwise specified, the limit of the time-weighted average of the concentration for a carcinogen, mutagen or reprotoxic substance in the air within the breathing zone of a worker in relation to a specified reference period as set out in Annex III.



# About ISSA

[see also other brochures of Chemistry Section]

## Providing social security

The International Social Security Association (ISSA) is the world's leading international organization for social security institutions, government departments and agencies.

Social security may be defined as any programme of social protection established by legislation, or any other mandatory arrangement, that provides individuals with a degree of income security when faced with the contingencies of old age, survivorship, incapacity, disability, unemployment or rearing children. It may also offer access to curative or preventive medical care.

The ISSA was founded in 1927 under the auspices of the International Labour Organization, and today has over 320 member institutions from over 150 countries.

## Preventing work related risks

The Special Committee for Prevention plays an important role within the ISSA. It consists of 14 international sections and deals with work-related risks in various sectors such as chemical industry, mining, electricity and transport, but also with cross-cutting issues such as machine and system safety, information and prevention culture. The Special Committee coordinates the joint activities of the international risk prevention sections and other ISSA prevention activities. As one of the first sections of the Special Committee, the International Section for Prevention in the Chemical Industry was founded in June 1970 in Frankfurt am Main. It is committed to the prevention of accidents at work and occupational diseases in the chemical and related industries, in particular in the fields of plastics and rubber, varnishes and paints, pharmaceuticals and cosmetics, as well as specialty chemicals and petroleum processing. ISSA Chemistry Section is chaired by the German Social Accident Insurance Institution for the raw materials and chemical industry (BG RCI).

## Communicating expertise

A special thematic focus in the chemical industry is the handling of hazardous substances and the resulting health and explosion hazards. In 1978, therefore, the two working groups "Dangerous Substances" and "Explosion Protection" were formed in the Chemistry Section.

The working groups are engaged in intensive informal discussions, brochures and instruction media are developed, workshops are organized to promote an international exchange of experience among experts and to promote selected problems to develop targeted solutions.

In this way, the Chemistry Section wants to contribute to a high state of the art comparable among industrialized countries and to pass on its knowledge to even less developed countries.

## The "Dangerous Substances" Working Group of the ISSA Chemistry Section

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Silke Werner



Chemical Industry



Machine and System Safety



Transportation



Construction Industry



Information



Mining Industry



Agriculture



Health Services



Electricity, Gas and Water



Research



Iron and Metal Industry



Culture of Prevention



Education and Training



Trade

## Summary

This paper presents the consequences of legislation on the handling of hazardous substances with the focus on health protection in the workplace.

Starting from the European legal framework for the handling of hazardous substances at the workplace, the respective national legal implementations in Austria, France, Germany, Italy, and Spain will be shown. The most important laws, regulations, and rules will be briefly outlined.

Subsequently, national practical aids for implementation will be presented with the corresponding links.

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