

CHEMICALS

Assessment of chemical risks

1. Mechanisms for systematic evaluation, classification, and labeling of chemicals, including initiatives towards a harmonized system of classification and labeling of chemicals

The European Community has adopted recently law implementing GHS – the CLP Regulations (*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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006*). This regulation contains complex provisions regarding classification and labeling of chemicals.

2. Initiatives for assessment of toxic chemicals, hazard and risk assessment, and participation in various international and regional initiatives

The REACH Regulation (*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 (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC*) provides several measures regarding assessment of toxic chemicals, hazard and risk assessment.

Moreover, European Chemicals Agency, a special European institution, has been established for the purposes of managing and in some cases carrying out the technical, scientific and administrative aspects of this Regulation and to ensure consistency at Community level in relation to these aspects. Poland actively participates in the work of the European Chemicals Agency, as well as its committees and bodies, like the Committee for Risk Assessment or the Committee for Socio-economic Analysis.

We would like to underline that answers provided above regard the chemicals manufactured and introduced to the market in the European Union.

On the international/global level, Poland actively participates in the work of the relevant OECD bodies in the area of chemicals management.

Poland has accessed to Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. Poland is a party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and Stockholm Convention on Persistent Organic Pollutants. Poland has ratified ILO Convention 170 on Safety in the Use of Chemicals at Work.

3. Strategies for exposure assessment and environmental monitoring and improvement in procedures for using toxicological and epidemiological data to predict and estimate the effects of chemicals on human health and the environment

The State Environmental Monitoring (SEM) covers measurements, assessments and outlooks of the environmental state as well as collecting, processing and disseminating information on the environment. IEP provides reliable information on the state of the environment via the SEM system.

The scope of surveys and assessments are specified in multiannual Programmes for State Environmental Monitoring and Programmes for Voivodship Environmental Monitoring.

In 2007, we implemented the SEM tasks in the system of mutually linked thematic blocks: STATE, PRESSURES and ASSESSMENTS AND OUTLOOKS. A considerable part of the tasks was connected with the compliance of Poland's obligations towards the European Union, as well as the European Environmental Agency or resulted from environmental conventions and international agreements ratified by Poland. Some pieces of the outputs are using by Polish National Institute of Hygiene in researches on impact of hazardous substances and other factors (e.g energies) on human health also via environment.

The basic block of SEM is the block STATE, under which we produce primary data on levels of substances and other indicators specifying the state of natural elements. The Chief Inspector of Environmental Protection coordinates surveys and observations conducted by voivodship inspectors of environmental protection and scientific and research institutes as well as universities and colleges. We collect the results of measurements and observations in thematic databases and prepare quality assessments on their basis, related to particular components of the environment as well as voivodship and national reports on the state of the environment.

It is worth to mention about the researches of Polish scientific institutes on the subjects connected with using toxicological and epidemiological data when analyzing effects of chemicals on human health and the environment.

For instance, The Nofer Institute of Occupational Medicine (NIOM), Lodz, Poland, is an independent complex research and development centre with activities covering various areas of occupational and environmental health. It provides background research and expertise to the Ministry of Health and serves as an advisory body to the Ministry of Environmental Protection and numerous governmental agencies, including State Sanitary Inspectorate and State Labour Inspectorate, and also to local administration, trade unions and industry.

The primary task of the Institute is to conduct research and development activities and provide expertise on health hazards arising from occupational and environmental exposure to noxious agents. The multidisciplinary nature of the research performed makes it possible to solve complex problems of the work environment and workers health. Here are some example of projects performed by the staff of the Institute:

- Genotoxic hazards from high level exposure to heavy metals in the countries of Central Europe, Prof. dr hab. med. Konrad Rydzyński, 1997-2000
 - Assessment of early effects of urban air pollutants on the respiratory tract: an approach based on peripheral markers and molecular biology techniques, Prof. dr hab. med. Konrad Rydzyński, 1999-2002
 - Novel approaches to define and assess environmental health issues, particularly issues relating to release hazardous substances from waste landfills and human exposure, Prof. dr hab. Stanisław Tarkowski, 2002-2003
- 4. Information exchange and cooperation, data-quality assurance, application of assessment criteria, and linkages to risk management activities**

Poland actively cooperates within the framework of the European Union and OECD regarding these issues. Thorough information exchange is guaranteed, inter alia, under the provisions of REACH Regulation.

Poland actively participates in the OECD Good Laboratory Practice scheme.

Poland has co-operated with European Commission, international bodies, local authorities, non-governmental organizations in developing chemical safety issues, for example under various Phare and Transition Facility projects, co-financed by the European Union.

Information exchange network for enforcement authorities is operating. Several trainings have been performed under various EU-funded projects. Moreover, the publicly available website where all interested can gain access to chemical information sources is in place.

Poland has translated into Polish the SAICM text comprising the Dubai Declaration on International Chemicals Management, the Overarching Policy Strategy and the Global Plan of Action. The translation has been forwarded to the OECD.

Sound management of toxic chemicals

5. Progress within the larger framework of Strategic Approach to International Chemicals Management (SAICM)

The vast majority of the SAICM objectives is realized, or will be realized in the near future, within the European Union legislative framework, mainly through REACH Regulation. The recently adopted EU law implementing GHS will allow achieving several other SAICM goals. Implementation of other European legislative acts, e.g. concerning the export and import of dangerous chemicals or European environmental legislation, is also of great importance for achieving relevant SAICM goals.

Please note that Poland currently performs the tasks of the Regional Focal Point on SAICM for Central and Eastern Europe region (from the Second Session of the International Conference on Chemicals Management, May 2009, until the Third Session, first half of 2012).

The internal coordination on SAICM issues within the Government utilizes existing channels. The Government implements various elements of SAICM through already existing processes and legislation, as well as due to the international commitments, mainly connected with the membership in the European Union.

6. Initiatives and innovations for risk reduction, particularly taking in to account the life cycle of the chemicals

All actions on the European Union level are undertaken within the REACH system. On the global level Poland participates in activities within Multilateral Environment Agreements indicated above.

7. Precautionary measures derived from broad-based life cycle analysis

REACH Regulation contains several provisions in relation to precautionary measures derived from broad-based life cycle analysis - under compulsory chemical safety assessment performed by industry and within authorization, restriction procedures and substance assessment requirements under REACH Regulation.

8. Policy measures to phase out chemicals that pose unreasonable and unmanageable risk to human health and human environment, such as, for example, ozone-depleting substances
EU REACH Regulation contains several provisions that will assure that the risks from substances of very high concern are properly controlled and that these substances are progressively replaced by suitable alternative substances or technologies where these are economically and technically viable (authorisation procedure).

What is more, REACH imposes restrictions on the manufacturing, placing on the market and use of certain dangerous substances, preparations and articles (restriction procedure). Basically, a substance on its own, in a preparation or in an article covered by the given restriction shall not be manufactured, placed on the market or used unless it complies with the conditions of that restriction.

Main legal regulations connected with ozone-depleting substances (ODS) control by CIEP:

The Montreal Protocol on Substances That Deplete the Ozone Layer (a protocol to the *Vienna Convention for the Protection of the Ozone Layer*) is an international treaty designed to protect the ozone layer by phasing out the production of a number of substances responsible for ozone depletion. The treaty was opened for signature on September 16, 1987, and entered into force on January 1, 1989, followed by a first meeting in Helsinki, May 1989. Since then, it has undergone seven revisions, in 1990 (London), 1991 (Nairobi), 1992 (Copenhagen), 1993 (Bangkok), 1995 (Vienna), 1997 (Montreal), and 1999 (Beijing).

In the EU, the rules of dealing with ODS are specified in the Regulation (EC) No 2037/2000 of the European Parliament and of the Council *on substances that deplete the ozone layer*. It was revised several times and now the new *Regulation (EC) No.../2009* of European Parliament and of the Council on substances that deplete the ozone layer is being under legislative process. The European Parliament has adopted this piece of law so far.

According to the Polish legislation (Act on Substances depleting the ozone layer of 20 April 2004, OJ 2004.121.1263 further amended) dealing with the ODS these substances are controlled by the Inspection for Environmental Protection (Chief Inspectorate for Environmental Protection and 16 Voivodship Inspectorates for Environmental Protection with their field offices) and Customs Services. Terms of provisions for the industry are specified in 12 executive regulations to the act.

Management strategy of ozone depleting substances - CFCs, including the strategy of phasing out CFCs in Metered Dose Inhalers

The document was adopted by the Council of Ministers of the Republic of Poland on 14 April 2004.

This document contains recommendations of the Montreal Protocol in relation to CFCs, represents the state of the issues associated with the use of these substances in Poland and proposes steps necessary to implement the recommendation. Moreover, the strategy contains a reference to the possibility of applying the recommendations of the European Union, defined in Regulation (EC) No 2037/2000 of the European Parliament and Council of 29 June 2000 on substances that deplete the ozone layer.

Management Strategy of Halons

The document was adopted by the Council of Ministers of the Republic of Poland on 30 November 2004. The Strategy includes:

- a) restrictions on the use of halons in new installations and extinguisher equipment;
- b) introduction to the use of alternative measures and technologies for fire protection and fire fighting, acceptable because of their impact on the environment and human rights;
- c) providing halon for critical uses and terms of dismantling installations and equipment used in areas not obeying the criteria for critical uses;
- d) promoting appropriate actions to ensure effective and safe environmental reclamation of halons, their storage and recycling.

9. Policies and frameworks for prevention of accidents, preparedness and response

One of the institutions dealing with major accidents in Poland is Major Accident Prevention Department (in Chief Inspectorate for Environmental Protection). The main goals of this Department are:

- Initiating activities for major accident prevention,
- Identifying possible sources of major accidents,
- Supervision of removal and limitation of negative consequences of major accidents to the people and the environment
- Keeping of register of major accidents and establishments that may cause major accidents (including upper tier-, lower tier establishments),
- Cooperation with other competent authorities in major accidents (National State Fire Service, Sanitary Inspectorate, Labour Inspectorate)
- Cooperation on Seveso II Directive with General Directorate Environment,
- Cooperation with the UNECE authorities in transboundary effects of industrial accidents,
- Realization of bilateral agreements on major accident prevention (on transboundary waters) with neighboring countries,
- Participation in rescue exercises on removal of negative consequences of major accidents with competent authorities (including information exchange on risk and accidents),
- Training for administration units and operators of the establishments.

When potential environmental emergency occurs (i. e. accident with toxic chemicals) Major Accident Prevention Department is carrying out inspection (parallel to the activities of National State Fire Service, Sanitary Inspectorate, Labour Inspectorate and sometimes other competent authorities) which includes analyzing the following:

- documentation of the unit (administrative decisions, internal instructions etc.),
- state of organization of rescue actions,
- technical condition of the equipment for dealing with dangerous substances, and for protection in the event of a breakdown (production, storing and reloading). The attention should be drawn to the required documents issued by the Office of Technical Inspection,
- register of environmental emergencies and chemical breakdowns (identification, causes, effects and their removal).

10. Policies aimed at reducing the risks posed by lead, mercury and cadmium and other harmful heavy metals, including through a review of relevant studies, such as, for example, the United Nations Environment Programme global assessment of mercury and its compounds

Main activities performed in Poland with the aim to reduce risks caused by lead and cadmium

a) Exposure assessments and use and environmental release inventories

Monitoring of gaseous and particulate air emissions and of waste water discharges into waters or land is managed in Poland by the Chief Inspectorate for Environmental Protection (GIOŚ) under the National Environmental Monitoring Scheme. The Voivodship (i.e. Provincial) Inspectorate for Environmental Protection and the Voivodship Marshall Office both deal with collection of data on the quantity and types of gases or particulate matter released into the air and on the quantity of waste water discharged into waters or land in the area of given Voivodship. For waste water discharges, the relevant data is provided by the business entities in relation to the charges they are obliged to incur for use of the environment. Moreover, data sets on cadmium and lead emissions are prepared by the National Administrator of the Emission Allowance Trading (KASHUE) and then forwarded to the European Monitoring Emission Program (EMEP) and the European Pollutants Emission Register (EPER) of the European Commission for the annual reporting purpose.

b) Levels in various media

Data collected by the GIOŚ under the National Environmental Monitoring Scheme are only available on lead and cadmium concentrations in PM10 particulate matter in atmospheric precipitation and in

surface waters. The preliminary air quality assessment with view of the cadmium content in PM10 particulate matter, as structured into zones per each Voivodship, is carried out in the framework of the preparatory work aimed at implementation of *Directive 2004/107/EC of the European Parliament and of the Council of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air*.

c) Level of contamination of drinking water

Data on concentrations in drinking water, including lead and cadmium content, is collected in the framework of drinking water quality monitoring system being managed since 2005 by the National Sanitary Inspectorate.

d) Global flow in products

When implementing its commitments in relation to implementation of the relevant Community legislation, Poland has introduced into its legal framework a number of legal acts regulation of restriction or total prohibition on use of lead and cadmium in products. Thus, the major legal regulations introduced into the Polish legal framework cover the products types as discussed below:

– *Electrical and electronic equipment*

Regulation of Minister of Economy of 27 March 2007 r. on the specific requirements on use of certain substances in electrical and electronic equipment that could have negative environmental impact (Official Journal No. 69, Item 457, further amendments), is the act mandatory in this scope that implements the provisions in *Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment* (so called RoHS Directive).

– *Batteries and accumulators*

Regulation Minister of Economy of 17 October 2002 on specific requirements to be met by batteries and accumulators manufactured and placed on the market (Official Journal No. 182, Item 1519) is the act mandatory in this scope that implements the provisions in the *Council Directive 91/157/EEC of 18 March 1991 on batteries and accumulators containing certain dangerous substances*. At present, the work is under way to implement the provisions in *Directive of the European Parliament and of the Council 2006/66/EC of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing on 26 September 2006 Directive 91/157/EEC*.

– *Vehicles*

Regulation of Minister of Economy and Labour of 4 October 2005 on the list of materials, equipment items and vehicle parts permitted to contain lead, mercury, cadmium and hexavalent chromium (Official Journal No. 200, Item 1653) is the act mandatory in this scope that transposes the *Commission Decision of 27 June 2002 amending Annex II of Directive 2000/53/EC of the European Parliament and of the Council on end-of-life vehicles*,

– *Crystal glass*

Regulation Minister of Economy of 4 August 2006 on the specific requirements on the crystal glass products (Official Journal No. 148, Item 1070) is the act mandatory in this scope that implements the provisions in the *Council Directive 69/493/EEC of 15 December 1969 on the approximation of the laws of the Member States relating to crystal glass*. The Regulation sets forth specific requirements on the crystal glass products, the method for identification and labelling of the crystal glass products and the conditions and procedure for carrying out tests on the crystal glass products.

– *Packaging*

The Act of 11 May 2001 on packaging and packaging waste (Official Journal No. 63, Item 638) is the act mandatory in this scope that implements the provisions in *Directive 94/62/EC of the European Parliament and of the Council of 20 December 1994 on packaging and packaging waste*. The method

to determine this content is set forth in the provisions of Regulation Minister of Environment of 8 April 2003 on the method to determine the total content of lead, cadmium, mercury and hexavalent chromium in packaging (Official Journal No. 66, Item 619).

Moreover, since 1 January 2003, Regulation of Minister of Environment of 30 December 2002 on the lead, cadmium, mercury and hexavalent chromium content in packaging (Official Journal No. 241, Item 2095) is in force.

Main activities performed in Poland with the aim to reduce risks caused by mercury

a) Requirements on application of mercury in products and production processes

The requirements on application of mercury in products and production processes are set forth under Polish legal framework by the following legal acts that have resulted from transposition of the relevant Community provisions:

- *Packaging*

Act of 11 May 2001 *on packaging and packaging waste* (Official Journal No. 63, Item 638, further amended) and Regulation of Minister of Environment of 30 December 2002 *on the contents of lead, cadmium, mercury and hexavalent chromium in packaging* (Official Journal No. 241, Item 2095, further amended).

- *Batteries and accumulators*

Act of 24 April 2009 *on batteries and accumulators* (Official Journal No. 79, Item 666).

- *End of life vehicles*

Act of 20 January 2005 *on the recycling of the end of live vehicles* (Official Journal No. 25, Item 202, further amended) and Regulation of Minister of Economy and Labour of 4 October 2005 *on the list of materials, equipment and parts of vehicles which could contain lead, mercury, cadmium, and hexavalent chromium* (Official Journal No. 200, Item 1653).

- *Electrical and electronic equipment*

Regulation of Minister of Economy of 27 March 2002 *on the specific requirements on the use in electrical and electronic equipment of the substances which could adversely impact the environment* (Official Journal No. 69, Item 457)

- *Labour safety*

Regulation of Minister of Economy of 19 March 2007 *on the labour safety and hygiene when handling mercury and its compounds* (Official Journal No. 69, Item 455).

- *Manufacturing conditions*

Regulation of Minister of Economy of 5 July 2007 *on the restrictions, bans or conditions to manufacture, marketing or use of hazardous substances and preparations and the products containing them* (Official Journal No. 168, Item 1762, further amended)

Moreover the Act of 26 April 2007 on amendments in the Act on Environmental Protection Law (Official Journal No. 88, Item 587) transposes into the Polish law the Directive 2004/107/EC of the European Parliament and of the Council of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.

As far as mercury emissions from industrial installations are concerned, they are covered by the reporting obligations under the Polish National Pollutant Release and Transfer Register being a part of the European Pollutant Release and Transfer Register. The Chief Inspector of Environmental Protection will manage the Register. Information on pollutant releases into the air, water and soil, on transfers of pollutants contained in waste water beyond the site where they were originated, and on transfer of waste, will be submitted by the installation operators (i.e. the installations which require

integrated permit and the relevant activities as set out in Annex 1 of the IPPC Directive) in their annual reports, while 2007 is the first reporting year.