

Responsible chemicals management



Introduction

LyondellBasell (LYB) is a global leader in the chemical industry. Through advanced technology and focused investments, we are working to enable a circular and low carbon economy. LYB leads the industry in producing basic chemicals and plastic resins which are the building blocks for numerous products. While these plastic resins and chemicals deliver many benefits to society, there are concerns that the chemical components of these materials could have adverse impacts on human health and the environment.

LYB's commitment to providing solutions for everyday sustainable living requires a sound understanding of the product life cycle of the products we produce. This includes an assessment of potential hazards associated with the raw materials used to produce our products, an understanding of how, where and what the product is used for and the potential human health and/or environmental impact associated with the products intended use.

Our positions

The following chemicals management positions reflect our commitment to be an industry leader by initiating environmentally-conscious decisions while redefining our industry through the development of circular and low carbon products and technologies in a sustainable manner and at scale.

Position 1: We are committed to Responsible Care® and subscribe to the intentions of the United Nations' Global Framework on Chemicals (GFC) – For a Planet Free of Harm from Chemicals and Waste¹

Responsible Care® is the global chemical industry's voluntary initiative to drive continuous improvement in safe chemicals management and achieve excellence in environmental,

health, safety and security performance. The Responsible Care® initiative began in Canada in 1984, and today, national chemicals associations in nearly 70 economies around the world manage Responsible Care® implementation in their individual countries.

The objective of the sound management of chemicals is to apply managerial best practices to chemicals throughout their life cycle to prevent, and, where this is not possible, to reduce or minimize the potential for exposure of people and the environment to toxic and hazardous chemicals (i.e. through emissions, use, disposal, etc.).²

Moreover, LYB supports the three industry ambitions formulated for the GFC, individually or together with the International Council of Chemical Associations.^{3,4}

¹ The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) were adopted by the General Assembly of the United Nations in September 2015. The Global Framework on Chemicals is a specific target under SDG 3 on good health and well-being, 12 on Sustainable Consumption and Production and 17 on Partnerships for the Goals

² See Agenda 21, Chapter 19 (<https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>)

³ The announced global industry ambitions include the following actions to be implemented with a target date of 2030:

- Provide access to available data on the safety and sustainability of our products.
- Support 30 countries in their implementation of effective chemical management systems.
- Guide our company product portfolios, including processes, toward sustainable solutions.

⁴ [ICCA Statement on the Outcome of the Fifth Session of the International Conference on Chemicals Management \(ICCM5\) - International Council of Chemical Associations \(ICCA\)](#)

Position 2: We are committed to a proactive approach to chemicals management going beyond regulatory compliance.

As part of this commitment, we participate in the Global Product Strategy (GPS) voluntary program to improve the safety of selected chemical products during their use and handling, the GPS safety summaries are posted on our website under Product Safety & Stewardship⁶.

Our Global Product Safety and Stewardship program incorporates a broad range of practices to ensure the safe and environmentally sound manufacturing, distribution, handling, use and disposal of the products we produce. These practices encompass the entire product life cycle, including:

- Identifying any hazards associated with chemical components used and produced globally, either by applying existing scientific knowledge, computational approaches and/or testing;
- Evaluating potential exposures to chemicals, including their use in the value chain;
- Identifying candidate substances for substitution, reduction or elimination from our product portfolio;⁵
- Assessing and mitigating risks to human health and the environment;
- Supporting governmental programs and multi-stakeholder research programs by providing scientific expertise, product information and sharing best practices; and
- Continuously improving global implementation of the program by integrating regular product portfolio reviews with global sharing of best practices and capacity building

Position 3: We are committed to providing timely and accurate composition and hazard profile information for all products we produce

Safety Data Sheets (SDS) are available, regardless of the product safety profile, for all LYB products, as per the specific country's requirements or where no such requirements exist, according to the applicable GHS⁷ revisions. The SDS are publicly available in the local languages of production and ship-to countries.⁸

⁵ <https://www.lyondellbasell.com/en/products-technology/product-safety-stewardship/global-product-strategy-safety-summaries/>

⁶ LYB endeavors to remove Substances of Very High Concern from products that may be used in sensitive end use applications beyond market requirements and global regulations by 2030. Where this is not possible, the identified substances should be lower than 0.1% in the product.

⁷ GHS stands for the Globally Harmonized System of Classification and Labeling of Chemicals and is a system for harmonizing hazard classification criteria and chemical hazard communication elements worldwide.

⁸ It may be required to register on LYB.com. The purpose is to ensure traceability for proactive submission of future updates of the requested documents and ensure that customers or other stakeholders timely obtain the relevant documents.

⁹ Example: ICCA additives database (<https://plasticcircularity.org/additives/>)

¹⁰ CMR stands for Carcinogenic, Mutagenic or Toxic for Reproduction. CMR substances are chemical substances (or mixtures) of specific concern due to the long term and serious effects they may have on human health.

¹¹ New Approach Methodologies (NAMs) are any technology, methodology, approach, or combination that can provide information on chemical hazard and risk assessment to avoid the use of animal testing.

We have programs in place to comply with all product regulations at the global, national, and regional levels. In the European Union, this includes regulations for the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH); the Classification, Labelling and Packaging (CLP Regulation) and various product-specific regulations. We comply with those of the U.S., including regulations set by the Toxics Release Inventory (TRI) Program and the Toxic Substances Control Act (TSCA). In addition, we participate in industry initiatives to improve transparency.⁹

Position 4: We are committed to producing products which limit, and wherever possible, eliminate, the use of carcinogenic, mutagenic or reprotoxic (CMR) substances¹⁰ as part of the production process

As part of our product management process, we work with suppliers and the extended supply chain to obtain chemical composition information on both formulated and finished products that we source. We also partner with our suppliers to drive increased transparency down the value chain and share best management practices when it comes to chemicals management.

Substances produced in areas without chemicals management legislation are risk-assessed under internationally-recognized guidelines to ensure there is no unmitigated risk, where necessary. Further, we are committed to employing New Approach Methodologies¹¹ (when possible) to collect information to assess the potential hazard to human health and the environment.

Product development projects are evaluated based on product composition, including the hazard and toxicity profile of the components used in the formulation, and move forward only if safety criteria are met.

We continuously monitor and evaluate scientific research, applicable global laws, regulations and standards, and sustainability developments concerning the raw materials we procure to produce our products as well as the products we produce. Based on this information, we may work to eliminate or substitute substances in our product formulations. In this regard, we think beyond compliance and anticipate how a shift in hazard information or regulatory trends in one market can be leveraged to improve our global portfolio and position in the short-, medium-, and long-term.

About us

We are LyondellBasell (LYB) – a leader in the global chemical industry creating solutions for everyday sustainable living. Through advanced technology and focused investments, we are enabling a circular and low carbon economy. Across all we do, we aim to unlock value for our customers, investors and society. As one of the world's largest producers of polymers and a leader in polyolefin technologies, we develop, manufacture and market high-quality and innovative products for applications ranging from sustainable transportation and food safety to clean water and quality healthcare. For more information, please visit www.lyb.com or follow [@LyondellBasell](https://www.linkedin.com/company/lyondellbasell) on LinkedIn.