



EUROPEAN DIISOCYANATES RESTRICTION

SAPICI Positioning and Recommendations

Summary of this document

This document originates from the restriction n. 74 on the use of Diisocyanates in Europe that will apply to all professional and industrial users of products with a total monomeric diisocyanate concentration of $> 0.1\%$. As from 24 August 2023 adequate training will be required before industrial or professional use of such products and from 24 February 2022 a phrase on the label will have to indicate the requirement of training. Furthermore this document presents SAPICI's supporting positioning towards the principles of the human health and the environment preservation and protection, along with SAPICI's recommendations that such initiatives shall not damage the European Chemical Industry's international competitiveness, but value instead both the investments and the progressive solid results being achieved by the European Chemical Industry through its players, particularly in terms of EH&S-driven innovation. SAPICI shares through this document further evidence about its products and solutions complying with the most stringent laws and regulations — including the adopted new restrictions — available to its clients since 2004.



The ECHA frame

The European Chemicals Agency (ECHA) is the driving force among regulatory authorities in implementing the EU's groundbreaking chemicals legislation for the benefit of human health and the environment, as well as for innovation and competitiveness. ECHA works together with the European Commission and the EU Member States Competent Authorities (MSCAs) for the safety of human health and the environment by identifying the needs for regulatory risk management at a EU-wide level.

Diisocyanates restriction – entry n. 74

The restriction is officially in Annex XVII as follows:

Diisocyanates, $O=C=N-R-N=C=O$, with R an aliphatic or aromatic hydrocarbon unit of unspecified length:

1. **Shall not be used** as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) **after 24 August 2023** unless:

- (a) the concentration of diisocyanates individually and in combination is less than 0,1% by weight, or
- (b) the employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture(s).

2. **Shall not be placed on the market** as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) **after 24 February 2022**, unless:

- (a) the concentration of diisocyanates individually and in combination is **less than 0,1%** by weight, or
- (b) the supplier ensures that the recipient of the substance(s) or mixture(s) is provided with information on the requirements referred to in point (b) of paragraph 1 and the following statement is placed on the packaging, in a manner that is visibly distinct from the rest of the **label information: "As from 24 August 2023 adequate training is required before industrial or professional use"**.

3. For the purpose of this entry "industrial and professional user(s)" means any worker or self-employed worker handling diisocyanates on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) or supervising these tasks.

4. The training referred to in point (b) of paragraph 1 shall include the instructions for the control of dermal and inhalation exposure to diisocyanates at the workplace without prejudice to any national occupational exposure limit value or other appropriate risk management measures at national level. Such training shall be conducted by an expert on occupational safety and health with competence acquired by relevant vocational training.

The training shall be renewed at least every five years and the necessary material must be provided by the manufacturers and importers of diisocyanates on their own or as a constituent in other substances, and importers and manufacturers of mixtures containing diisocyanates.

Depending on the exposure level at workplaces, worker have to be trained according to

- General training (basic level, for all industrial and professional uses)
- Intermediate training (handling open mixtures at ambient temperature, including foam tunnels; spraying in a ventilated booth; application by roller; application by brush; application by dipping and pouring; mechanical post treatment, e.g. cutting of not fully cured articles which have cooled; cleaning and waste; any other uses with similar exposure through the dermal and/or inhalation route)



- Advanced training (handling incompletely cured articles, e.g. freshly cured, still warm; foundry applications; maintenance and repair that needs access to equipment; open handling of warm or hot formulations (>45°C); spraying in open air, with limited or only natural ventilation (includes large industry working halls), **high energy application** (e.g. solventless lamination, foams, elastomers); and any other uses with similar exposure through the dermal and/or inhalation route).

SAPICI, in collaboration with trade associations, is supporting the drafting activities of training materials, as stated in paragraph 4.

SAPICI's support to the initiative in principles

SAPICI welcomes the continued and strengthened attention that the European and global legislative bodies promote and direct towards the human health and the environment preservation and protection, valuing both the investments and the results achieved by the most attentive, sensitive and capable Companies in terms of EH&S-driven innovation. Such results are expressed and measured by both the resources dedicated to the use of always “green/greener” raw materials, technologies and manufacturing standards, followed by the commercialization of competitive and technology-intensive products and solutions that respect the most stringent international laws, regulations and standards.

At the same time, SAPICI believes that for any standard PU application where formulations below 0.1% cannot be developed yet, the market should be allowed to use the available products, always in full respect of the existing laws, regulations and best practices.

SAPICI is available to support its clients to comply with the conditions of use, risk management measures and training included in the restriction.

Evidence of SAPICI's readiness: products and solutions available to SAPICI's clients since 2004

SAPICI's clients know that since 2004 the Company has been developing, manufacturing and commercialising truly advanced polyurethane products and solutions fully compliant even with the proposed further restrictions currently being suggested by the German Dossier submitted to ECHA. Already thirteen years ago, first in the world SAPICI was introducing aromatic isocyanates with ultra-low free monomer content (less than 0.1%) representing a milestone in the Coating and Adhesives industries and still a benchmark in the market. **That means that after the adopted restriction there would be no changes for SAPICI's clients already using ultra-low free monomer products: neither in terms of product supply, nor in terms of linear pricing, by using these products no internal training by the end user**

As regards labelling, SAPICI's innovative and sustainable Aromatic (both MDI and TDI based), Aliphatic and Hybrid Aromatic/Aliphatic Polurgreen Line of isocyanate products with ultra-low free monomer (<0.1%) already make it possible for the clients to downgrade their own products' Hazard Pictograms and Statements from “danger” to just “warning” — without the use of the Serious Health Hazard Pictogram —, thus immediately showing the lowering of the potential risk of the final products. Such advantages would not be possible with other SAPICI products containing even just <0.5% concentration of free monomer.



SAPICI ultra-low free monomer (<0.1%) **Polurgreen** Line, covering a wide range of polyisocyanate and prepolymer TDI, HDI and MDI based, include — as an example — the: AD 01, AD BA 01, IR 01, 60T 01, OK 01, FP 75 01, MT75 01, MT90 01, MT 100 01, MT 100 LV 01, MT 100 LLV 01, PRP 350, PRP 450 01, PRP 750 01, PRP 800 01, PRP 940 01, PRP F 930 01, PRP 6050 01, PRP 5500 01, AWW 01, AWW 4 01, AWW 6 01, LP100 LV, LP 100 LH, FP7910.

SAPICI wishes to reassure its clients that the Company is not planning to discontinue its standard polyurethane product range.

SAPICI's recommendations about future restrictions

While fully endorsing, sustaining and implementing the strictest standards for the continuous respect of the human health and the environment preservation and protection, SAPICI recommends that the identification and implementation of parameters, methods and values for chemical products evaluation and circulation in Europe shall not damage the European chemical industry's licence to operate and its ability to develop and offer polyurethane-based customized solutions to its clients. Neither the restrictions should impact the international competitiveness of the European industry.

SAPICI is confident that any future decision regarding the use and circulation of chemicals in Europe will be taken in respect of the demonstrated commitment, the achieved results and the progressive continuous improvements that the Industry through its players has been able to show and sustain.

About SAPICI

Established in Italy in 1936, S.A.P.I.C.I. S.p.A. is a global innovation and full-quality driven developer and manufacturer of advanced and high-performance polyurethane products for such applications as Coating, Flexible Packaging, Industrial Adhesives, Prepolymers, Inks, and more. SAPICI combines its product offering with direct and tailored services to its clients worldwide including continued technical assistance, research and development, and industrialization. SAPICI technical knowhow and testing and analysis equipment allow its highly qualified workforce to anticipate and satisfy the needs and requirements of its most demanding clients, contributing to paving their way to further sustainable success. Over 160 SAPICI employees located in the Company's commercial offices and in the three production sites in Italy and China serve their customers supported by a capillary technical and commercial global organization. More information about SAPICI is available at www.sapici.it.

References for further information

- The text of the hereby-referred Restriction is available here:
<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1596534449847&uri=CELEX:32020R1149>
- The communication of ISOPA/ALIPA (industry associations that represent producers of diisocyanates) related to the publication of the restriction:
<https://www.isopa.org/media/3583/isopa-alipa-ebook-diisocyanates-reach-restriction.pdf>
- SAPICI Positioning Statement and Recommendations on the European Diisocyanates Restriction Proposal:
<https://www.sapici.it/position-on-the-diisocyanates-restriction-proposal-final-draft-1-pdf-2/>

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