

## Formalin and Formaldehyde Exposure Poses Significant Occupational Health Risks

**London, 12 May 2026:** Every day, nurses and laboratory staff across UK hospitals are exposed to Formalin and Formaldehyde with potentially significant harmful health effects ranging from asthma to cancer, despite clear regulatory guidelines on protection requirements from closed-system solutions. A new review published today by the European Biosafety Network (EBN) titled, *Formalin and Formaldehyde in Healthcare: Occupational Risks, Regulatory Obligations, and Closed-System Solutions*, sets out the scale of the problem and what must be done to address this, calling for the adoption of sealed specimen containers that prevent dangerous vapours from escaping into the air. Available here: <https://www.europeanbiosafetynetwork.eu/resources/>

Formalin, the liquid used to preserve biopsy tissue samples in diagnostic pathology, is classified as a Category 1B carcinogen under both EU and UK law. Despite this, open containers remain in routine usage across many hospitals. Studies consistently show that formaldehyde levels in pathology laboratories and operating theatres regularly exceed safe thresholds during everyday tasks such as opening specimen jars or handling tissue. Even at relatively low levels of exposure, healthcare workers report significantly higher rates of eye and nasal irritation, allergic rhinitis, asthma, and skin reactions than colleagues who are not exposed. These are not isolated incidents: they reflect the daily reality for the nurses and laboratory staff who routinely handle formalin.

This white paper reviews the occupational health evidence, the regulatory obligations that apply to employers in the EU and UK, and the case for replacing open containers with closed-system alternatives, which are sealed containers designed to prevent formalin vapour from escaping into the air. It also includes practical guidance for healthcare institutions on how to evaluate and procure appropriate solutions.

**Kim Sunley, Head of Health, Safety and Wellbeing at The Royal College of Nursing, said:**

"Hazardous medicinal products like formalin and formaldehyde are used widely, including across health care and research. We expect all health care employers to comply with their duties under the COSHH regulations and identify where and when nursing staff are exposed. Where there is a risk of harm to health and no alternative to using formalin and formaldehyde, they must ensure that robust control measures are put in place to minimise any risks to their health."

**Dr Acran Selman Navarro, Chair of the ICOH Scientific Committee on Occupational Health for Health Workers, said:**

"As Chair of the ICOH Scientific Committee on Occupational Health for Health Workers, I am calling for renewed global commitment to preventing formaldehyde-related occupational cancer, a fully avoidable threat to the health workforce. Formaldehyde is a confirmed human carcinogen, and too many workers in laboratories, healthcare facilities, manufacturing, and mortuary services remain at risk due to inadequate controls, inconsistent training, and outdated infrastructure. Protecting those who protect others requires strong, science-driven

prevention programs built on exposure monitoring, closed handling systems, engineering controls, safer chemical substitution, and comprehensive worker training. We urge employers, regulators, unions, and global partners to prioritize prevention now—because every health worker deserves a workplace free from carcinogenic exposure, and every cancer prevented is a life and career protected.”

**Josh Cobb, Secretary of the European Biosafety Network, said:**

“Formalin is used in hospitals every day by nurses and laboratory staff who may not be aware of the level of risk that exposure carries. The risks to staff who handle formalin regularly are well-established and significant, ranging from nasal irritation to cancer, and in many cases are not being adequately controlled. In the UK particularly, reliance on personal protective equipment as the primary safeguard is not consistent with what the law requires or what the evidence supports. The EBN produced this paper specifically to give healthcare institutions, safety leads and policymakers the information they need to address that gap.”

The European Biosafety Network is calling on healthcare institutions, procurement bodies, and clinical safety leads across the UK to review their specimen handling practices and to prioritise the adoption of closed-system containers. Where open containers remain in use, employers should be aware that relying on personal protective equipment, such as gloves and masks, as the primary safeguard may not be sufficient to meet their legal obligations under EU or UK law.

The EBN’s white paper, *Formalin and Formaldehyde in Healthcare: Occupational Risks, Regulatory Obligations, and Closed-System Solutions*, published in April 2026, was funded by industry, produced with independent academic review, and is available at <https://www.europeanbiosafetynetwork.eu/resources/>

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**Notes to Editors**

*About the European Biosafety Network (EBN)*

The European Biosafety Network (EBN) is an independent, non-profit network working to improve biological, occupational and patient safety across the healthcare sector in Europe. Established in 2009, the EBN brings together healthcare professionals, trade unions, professional bodies, patient safety organisations and other stakeholders with a shared commitment to safer working practices in healthcare.

EBN focuses on reducing occupational risks arising from exposure to biological and hazardous agents, including sharps injuries, hazardous medicinal products (HMPs) and other preventable safety threats. The Network works through evidence-based advocacy, policy engagement, education and awareness-raising to support the development and implementation of effective safety standards at European and national level.

EBN has convened summits and expert forums in national parliaments and EU institutions, collaborated with European and national partners on guidance and research, and engages with policymakers to ensure that the protection of healthcare workers is properly reflected in legislation and practice. For more information, visit [www.europeanbiosafetynetwork.eu](http://www.europeanbiosafetynetwork.eu)

### *About Formaldehyde Regulation*

Formaldehyde is classified as a Category 1B carcinogen under the EU CLP Regulation (EC No 1272/2008) and falls within the scope of the EU Carcinogens, Mutagens and Reprotoxic Substances Directive (CMRD 2004/37/EC), as amended by Directive (EU) 2019/983 and Directive (EU) 2022/431. In the UK, it is regulated under the Control of Substances Hazardous to Health (COSHH) Regulations 2002. The EU Scientific Committee on Occupational Exposure Limits recommends an 8-hour occupational exposure limit of 0.3 ppm and a 15-minute short-term exposure limit of 0.6 ppm.