Hazard vs Risk

**RISK = HAZARD × EXPOSURE**

Hazards is not the same as risk.
There is often confusion between the terms hazard and risk, causing them to be used incorrectly. There is a fundamental difference between the two.

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**HAZARD**
Anything that can cause harm

**LOW RISK**
The likelihood of harm being done and the extent of that harm

**HIGH RISK**

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**RISK**
The likelihood of harm being done and the extent of that harm

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**HERE’S AN EXAMPLE OF HAZARD VS RISK**

**HAZARD**

The body needs **salt**

**BUT**

57g of salt is considered a fatal dose for a child.

**LOW RISK**

Many fruits including **pears** naturally contain **formaldehyde** (100/μg/kg)

**BUT**

**Formaldehyde** can be deadly if consumed at high concentrations.

**HIGH RISK**

Ingestion of as little as 30ml of a solution containing 37% formaldehyde has been reported to cause death in adults.1

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**REMEMBER**
It’s the dose that makes the poison

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The Importance of Dosage

Many substances that are vital in small amounts can be lethal in large doses.

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Animal Testing

Animal testing is required under EU law to ensure that pesticides, and other chemicals, are safe for humans and the environment.

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**HERE’S AN EXAMPLE**

**RISK**

The pesticides industry works hard to minimise animal testing by applying intelligent testing strategies, in line with ECPA’s commitment to the “3 R’s Principle”:

1. **REFINE**
2. **REDUCE**
3. **REPLACE**

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Pesticides and biopesticides

A guide to the stringent scientific testing required by EU Regulation

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1 Medical Management Guidelines for Formaldehyde
Each manufacturer has its own unique research strategy to identify potentially suitable, safe substances. Much of the testing in this phase will consider the safety for humans, animals and the environment, it is often designed and conducted by independent bodies, adhering to international testing obligations as laid out by the OECD principles of Good Laboratory Practice.

A company submits test and study results to a designated national authority for approval. Member States authorise and register products containing the substance for use on the national market. The evaluation is carried out by one Member State and the other Member States.

European Commission submits a decision proposal to a Member States’ Committee vote. Reviewed by EFSA and all the other Member States.

Older products must be routinely reviewed by both the manufacturer and the authorities to ensure that they meet the most up to date safety standards. The cost of discovery and development of a substance was up to €215 million in 2005-2008, this cost increased to up to €189 million from 2010-2014.