

# RISK ASSESSMENT NOMOGRAPH

v1.0b

Product:

Client:

Project Code:

Maximum Potential  ▼

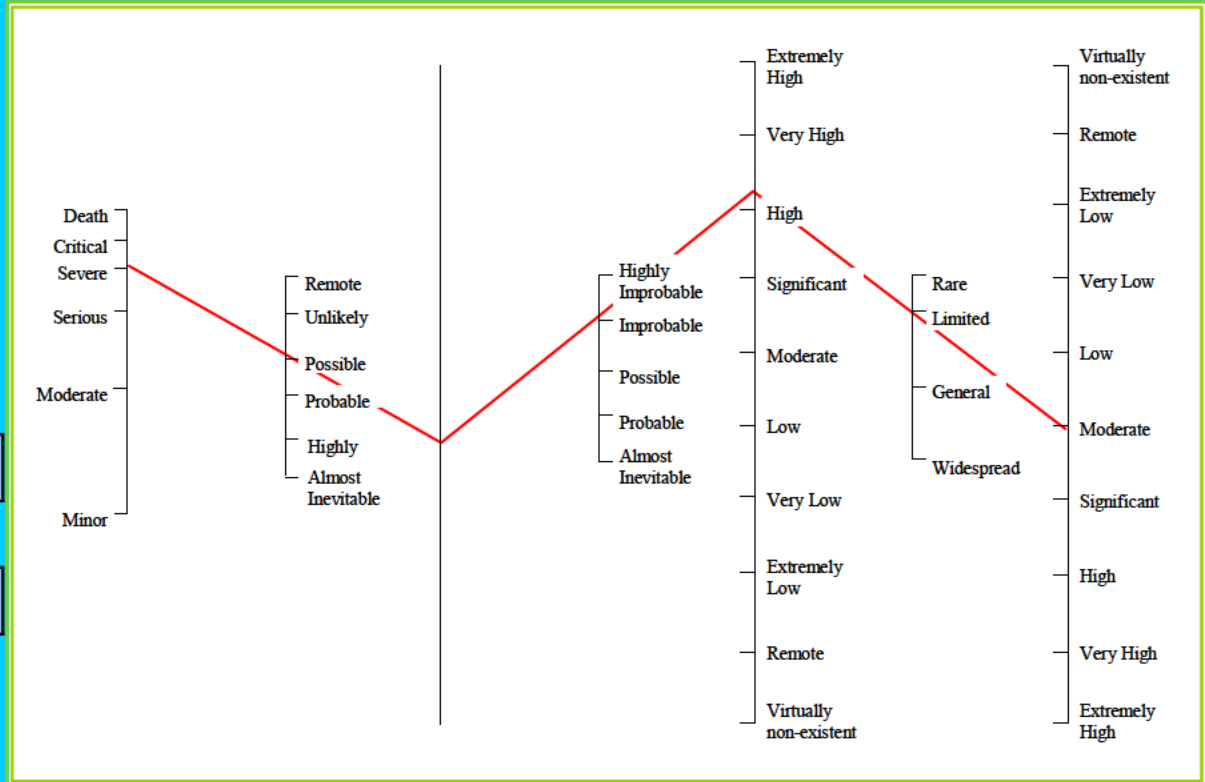
Probability Of  ▼

Hazard  ▼

Availability  ▼

Initial Risk  (71)

Final Risk  (51)



Developed by



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## **Guidelines for the use of the ICE/ NZ MCA Nomograph**

### **Introduction**

The original risk assessment model was developed for use by enforcement officers within the Ministry of Consumer Affairs in New Zealand. It was intended to assist in the prioritisation of resources, when there was greater demand than availability. Accordingly, the intention was to help decide whether, for example, a product accounting for three broken fingers warranted more urgent attention than another producing a single incident involving a broken arm.

#### **A) Maximum potential injury**

This is obviously an essential factor in assessment and the scaling of injury level should be based on generally accepted severity criteria with examples of the types of injuries applicable to the severity rating expressed in layman's terms. Unfortunately, there is a certain degree of subjectivity involved in assessing the maximum potential injury that a particular product may cause. However, the assessor's experience, a specific product complaint, the nature of a resultant injury (if applicable) and the type of defect should give reasonable indication.

Particular consideration must be given to very young children (ages 0 - 4) whose general lack of reaction capabilities may lead to more severe consequences. As an example, it is understood that an infant who puts a small object in its mouth may suffocate or inhale or ingest it as the reaction required to cough it up has not yet been fully developed. In a similar vein, elderly or disabled persons have reduced reaction capabilities which can increase the extent of a resultant injury.

#### **B) Probability of hazard occurrence**

Obviously, if a hazardous condition did not occur, no product safety problems would develop, so this is an essential parameter of the model. This is one of the most difficult of the four parameters to objectively rate. Other tools may be used to assist in the assessment of likelihood of occurrence. These may include batch sampling and associated statistical techniques, comparison with peer product or experiential knowledge. However, these should all be well documented if they are to be relied on as part of the risk assessment process.

#### **C) Hazard Recognition**

The ability to recognise a potentially hazardous condition will significantly reduce the possibility of injury and, consequently, this has been included as the third parameter of the model. Children and other vulnerable users may have a reduced ability to recognise hazards. Conversely, some hazards may be completely apparent (at least to adults) from the function of the product, such as a knife. Consideration should be given to the user profile as well as the product characteristics when scoring this variable.

#### **D) Availability**

This factor deals with two elements combined, and deviates from traditional use of the model. In this case availability is analogous with exposure, and needs to reflect not only the availability of the product to the purchasing public, but also the degree of presentation of that product within the normal environment. A product such as a toaster may be widely available through numerous retail and mail-order outlets, but it is only used for short periods of time. Conversely, some specialist equipment, such as a baby listening device may only be available in selected outlets, but will be exposed to consumers for considerable periods during the day and night. The resultant score must reflect the relevant aspects relating to the product in question. In some instances this may prohibit the use of the nomograph to make direct comparison of the risk associated with different products.