

# Risk Worksheet

**How to determine the risk to the employer if the problem is not solved.**

**Risk is a function of exposure, probability, and severity**

- What is the **exposure** - frequency and duration of physical/environmental exposure?
- What is the **probability** of an accident occurring if exposed?
- How **severe** will the injury or illness be when exposed?

**Risk = Exposure x Probability X Severity**

<b>Exposure</b>	
How frequently is an employee placed in the physical or environmental danger zone. Double scores if the duration of exposure in any category is greater than 1 hour.	
<b>The hazard-event occurs:</b>	<b>Rating</b>
Continuously (or many times daily)	100 200
Frequently (approximately once daily)	50 100
Occasionally (from once per week to once per month)	10 20
Usually (from once per month to once per year)	5 10
Rarely (it has been known to occur)	2 4
Very rarely (not known of have occurred, but remotely possible)	1 2

**Multiply the exposure rating by the number of employees exposed.**

<b>Probability</b>	
<b>The likelihood of injury or illness.</b>	<b>Rating</b>
Is the most likely and expected result if employee enters danger zone.	100
Is quite possible, would not be unusual, has an even 50/50 chance.	10
Would be unusual sequence or coincidence	5
Would be remotely possible coincidence.	
It has been known to have happened	3
Extremely remote but conceivably possible.	
Has never happened after many years of exposure.	2
Practically impossible sequence or coincidence.	
A "one in a million" possibility.	
Has never happened in spite of exposure over many years.	1

<b>Severity</b>	
<b>The most likely result - degree of Severity of Consequences</b>	<b>Rating</b>
Major Catastrophe: Numerous fatalities; extensive damage (over \$1M); major disruption	1000
Several fatalities; damage \$500K to \$1M	600
Fatality; damage \$100K to \$500K	200
Extremely serious injury; (amputation, permanent disability); damage \$1,000 to \$100,000	40
Disabling injuries; damage up to \$1,000	20
Minor cuts, bruises, bumps; minor damage	1

**Using the information from the three charts above and the risk score equation, determine the risk.**

Risk Score = E \_\_\_\_\_ x P \_\_\_\_\_ x S \_\_\_\_\_ = \_\_\_\_\_

***So, what do these scores mean?***

Nothing, by itself. When describing the risk of a number of hazards, comparing their relative risk scores will help you determine which hazard requires the highest priority...the most attention. For instance, a hazard that generates a risk score of 2000 should be corrected before a hazard that resulted in a score of 500. Tip! When determining risk you can use the definitions in the tables to develop a justification for the risk estimate.