



D A M S T R A

Configure Risk Score
Matrix

Safety



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Configure Risk Score Matrix Introduction

An important part of the Risk Assessment process is to quantify the threat posed by a particular risk to health and safety in your workplace, both before and after control measures are implemented, by way of calculating a risk score.

In Damstra Safety, the Risk Score is automatically calculated when a user evaluates both risk probability and consequence.

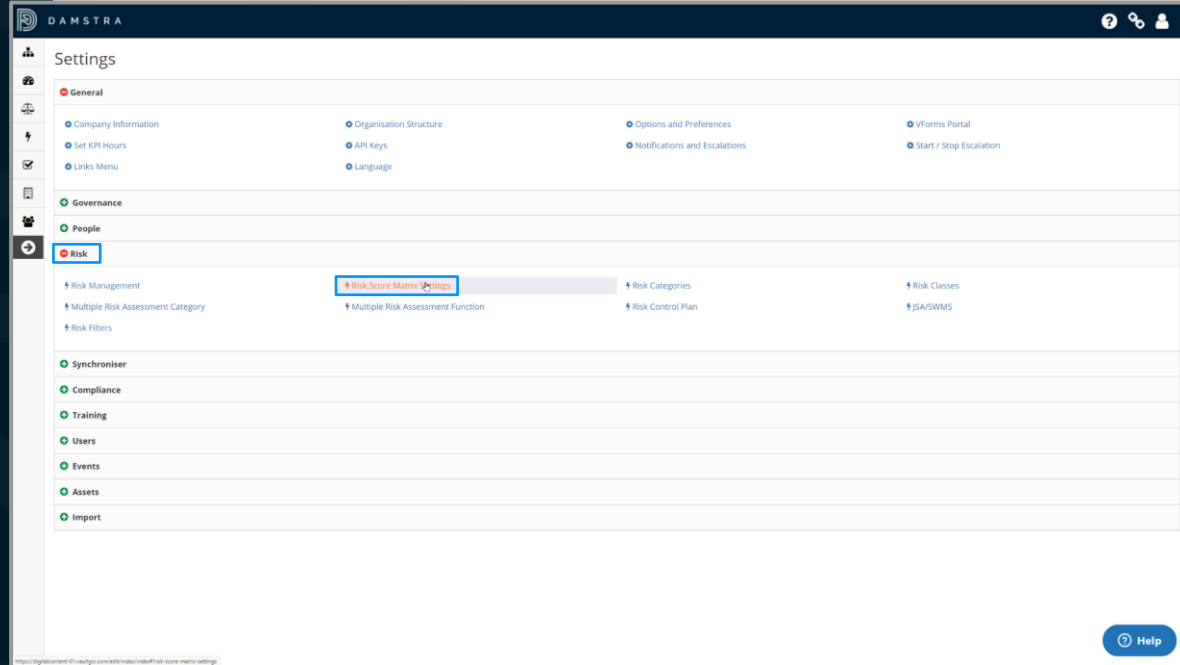
This guide shows how to configure your system so that scores are calculated in line with the scoring scheme used by your Organisation.



Configure Risk Score Matrix Settings

Begin in Settings, which can be found under the *Profile* icon at the top of the screen.

Click to expand the 'Risk' section, then **click** 'Risk Score Matrix Settings'.



Configure Risk Score Matrix

Matrix Type

The Risk Score Matrix is where we define the values associated with probability and consequence, and the method your Damstra Safety system should use to calculate the resulting score.

First, select the way you'd like scoring to be calculated. Under the 'Matrix Type' field, **choose** from:

- **Multiplication** - in which case the scores for probability and consequence are multiplied together,
- or **Addition** - whereby the scores will be added together to derive an overall Risk score.

In this example, we'll select 'Multiplication'.

The screenshot shows the 'Settings / Risk Score Matrix Settings' page in the DAMSTRA application. The 'Matrix Type' dropdown is set to 'Multiplication'. The 'Matrix Grid' section is expanded, showing the 'Probability' and 'Consequence' matrices. The 'Probability' matrix has columns for 'Category Score', 'Probability', and 'Risk Score'. The 'Consequence' matrix has columns for 'Category Score', 'Consequence', and 'Risk Score'. Both matrices have five rows for input. The 'Order of Point' is set to 'Ascending'. A 'Help' button is visible in the bottom right corner.

Settings / Risk Score Matrix Settings

Matrix Type: Multiplication

Matrix Grid

Probability & Consequence | Category | Score Matrix | Impact | Hint | Hierarchy of Controls

Probability

Probability

Consequence

Order of Point: Ascending (selected) | Descending

Category Score	Probability	Risk Score

Consequence

Category Score	Consequence	Risk Score

Help

Configure Risk Score Matrix Matrix Grid

Then, determine how many grades of probability and consequence your matrix should support via the '*Matrix Grid*' picklist. This may be 3x3, 4x4, 5x5 or 6x6.

For this example, we'll select '5x5', meaning five grades of probability and five grades of consequence.

The screenshot shows the 'Settings / Risk Score Matrix Settings' page in the DAMSTRA application. The interface includes a sidebar with navigation icons and a main content area with several configuration sections.

Settings / Risk Score Matrix Settings

- Matrix Type:** Multiplication
- Matrix Grid:** A dropdown menu is open, showing options: 3X3, 4X4, 5X5 (selected), and 6X6.
- Probability & Consequence:** This section is highlighted with a red underline. It contains sub-sections for 'Probability' and 'Consequence', each with a 'Category' picklist, a 'Score Matrix' table, and an 'Impact' picklist.
- Order of Point:** Radio buttons for 'Ascending' (selected) and 'Descending'.

Probability Section:

Category Score	Probability	Risk Score

Consequence Section:

Category Score	Consequence	Risk Score

Configure Risk Score Matrix Terminology and Order of Point

The *Probability & Consequence* tab allows you to customise the language used for each grade, and the score attributed to each one.

If your Organisation uses terms other than 'Probability' and 'Consequence', you may enter these here. Damstra Safety will then use your selected terms instead.

Under 'Order of Point', **select** 'Ascending' if a high score represents a high risk in your Organisation, or '*Descending*' if a low score represents a high risk. We'll leave this set to 'Ascending' for this example.

The screenshot shows the 'Settings / Risk Score Matrix Settings' page in the DAMSTRA application. The interface includes a sidebar with navigation icons and a main content area. The 'Probability & Consequence' tab is selected, showing input fields for 'Probability' and 'Consequence' terminology, and a radio button selection for 'Order of Point' (set to 'Ascending'). Below these are two tables for defining the risk score matrix.

Probability Matrix:

Category Score	Probability	Risk Score

Consequence Matrix:

Category Score	Consequence	Risk Score

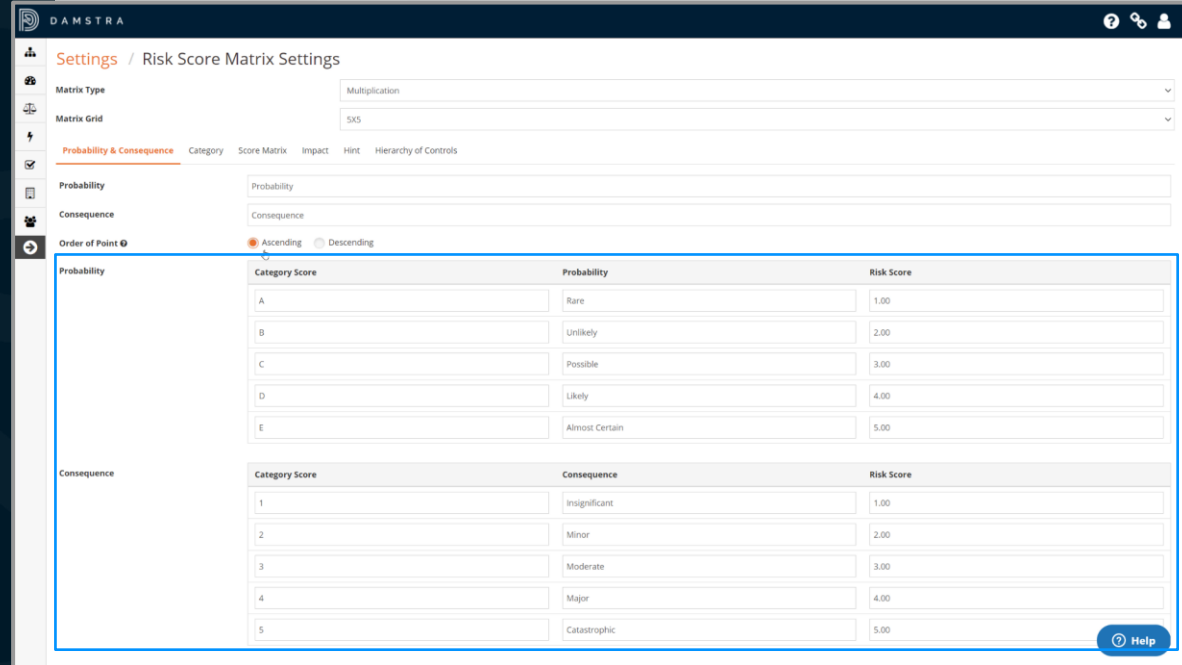
The interface also includes a top navigation bar with the DAMSTRA logo, a sidebar with icons for various settings, and a bottom right 'Help' button.

Configure Risk Score Matrix Category Scores

In the tables labelled 'Probability' and 'Consequence', for each 'grade' enter:

- a **Category Score** - this is a single-character identifier for the selected grade,
- a **grade** in the form of a word or short phrase - for example 'Almost Certain' through to 'Rare' for Probability, and 'Insignificant' through to 'Catastrophic' for Consequence,
- a **Risk Score**, which will be used as part of the calculation of the overall Risk Score when a user completes a risk evaluation.

Note that changes are saved automatically with each input.



DAMSTRA Settings / Risk Score Matrix Settings

Matrix Type: Multiplication
Matrix Grid: SAS

Probability & Consequence Category Score Matrix Impact Hint Hierarchy of Controls

Probability
Consequence

Order of Point: Ascending Descending

Category Score	Probability	Risk Score
A	Rare	1.00
B	Unlikely	2.00
C	Possible	3.00
D	Likely	4.00
E	Almost Certain	5.00

Category Score	Consequence	Risk Score
1	Insignificant	1.00
2	Minor	2.00
3	Moderate	3.00
4	Major	4.00
5	Catastrophic	5.00

DAMSTRA Help

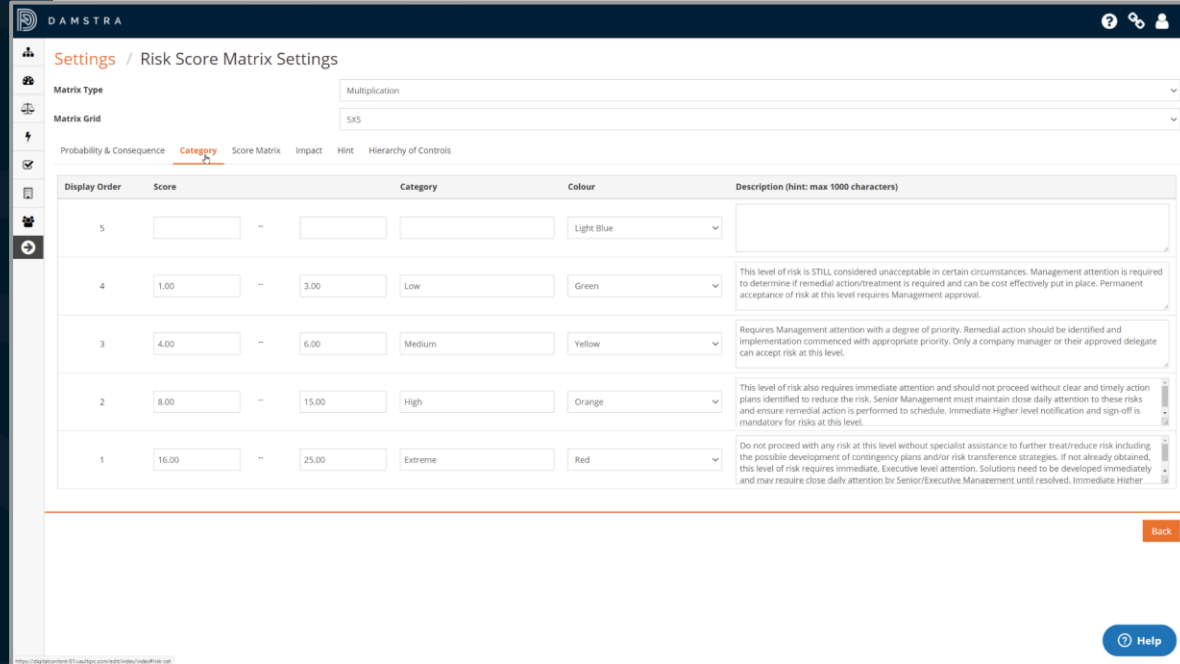
Configure Risk Score Matrix Category Tab

The *Category* tab is where we can provide Users editing or viewing a particular risk assessment item with commentary around what the item's overall Risk Score means to your Organisation.

This is achieved by defining up to 5 risk score categories, each with an associated risk score range and colour code.

For each category, enter:

- the lower and upper values within the range,
- the 'category' name,
- the colour-coding you'd like to use...
- and a 'description' that will be displayed to users when a score in that range is calculated.



The screenshot shows the 'Settings / Risk Score Matrix Settings' page in the DAMSTRA application. The 'Category' tab is selected, showing a table with 5 risk score categories. The table columns are Display Order, Score, Category, Colour, and Description (hint: max 1000 characters). The categories are numbered 1 to 5, with scores increasing from 16.00 to 1.00 and descriptions becoming more detailed.

Display Order	Score	Category	Colour	Description (hint: max 1000 characters)
5	1.00	Low	Light Blue	This level of risk is STILL considered unacceptable in certain circumstances. Management attention is required to determine if remedial action/treatment is required and can be cost effectively put in place. Permanent acceptance of risk at this level requires Management approval.
4	4.00	Medium	Yellow	Requires Management attention with a degree of priority. Remedial action should be identified and implementation commenced with appropriate priority. Only a company manager or their approved delegate can accept risk at this level.
3	8.00	High	Orange	This level of risk also requires immediate attention and should not proceed without clear and timely action plans identified to reduce the risk. Senior Management must maintain close daily attention to these risks and ensure remedial action is performed to schedule. Immediate Higher level notification and sign-off is mandatory for risks at this level.
2	16.00	Extreme	Red	Do not proceed with any risk at this level without specialist assistance to further treat/reduce risk including the possible development of contingency plans and/or risk transference strategies. If not already obtained, this level of risk requires immediate, Executive level attention. Solutions need to be developed immediately and max require close daily attention by Senior/Executive Management until resolved. Immediate Higher...

Navigation buttons: Back, Help

Configure Risk Score Matrix Category Tab cont.

If you'd like to use less than 5 categories, leave the score and category fields for any unrequired rows blank.

In this example, a risk assessment with a score of 20 is considered an 'Extreme' risk as it falls within the range of 16 to 25, and the score itself is presented to the User in a 'Red' cell, with the corresponding Description shown, and so on for all possible scores in the range.

DAMSTRA Settings / Risk Score Matrix Settings

Matrix Type: Multiplication
Matrix Grid: SXS

Probability & Consequence **Category** Score Matrix Impact Hint Hierarchy of Controls

Display Order	Score	Category	Colour	Description (hint: max 1000 characters)	
5			Light Blue		
4	1.00	3.00	Low	Green	This level of risk is STILL considered unacceptable in certain circumstances. Management attention is required to determine if remedial action/treatment is required and can be cost effectively put in place. Permanent acceptance of risk at this level requires Management approval.
3	4.00	6.00	Medium	Yellow	Requires Management attention with a degree of priority. Remedial action should be identified and implementation commenced with appropriate priority. Only a company manager or their approved delegate can accept risk at this level.
2	8.00	15.00	High	Orange	This level of risk also requires immediate attention and should not proceed without clear and timely action plans identified to reduce the risk. Senior Management must maintain close daily attention to these risks and ensure remedial action is performed to schedule. Immediate Higher level notification and sign-off is mandatory for risks at this level.
1	16.00	25.00	Extreme	Red	Do not proceed with any risk at this level without specialist assistance to further treat/reduce risk including the possible development of contingency plans and/or risk transference strategies. If not already obtained, this level of risk requires immediate, Executive level attention. Solutions need to be developed immediately and max require close daily attention by Senior/Executive Management until resolved. Immediate Higher

Back

Help

Configure Risk Score Matrix

Score Matrix Tab

The *Score Matrix* tab allows customisation of the way both scores and the score matrix are displayed to users when adding, editing, or viewing Risk Assessments in Damstra Safety. A preview based on the currently selected options is shown on-screen.

DAMSTRA

Settings / Risk Score Matrix Settings

Matrix Type: Multiplication

Matrix Grid: 5x5

Probability & Consequence | **Category** | **Score Matrix** | **Impact** | **Hint** | **Hierarchy of Controls**

Risk Score + Category

Rescore All Risk Assessment

	Consequence @	Insignificant(1)	Minor(2)	Moderate(3)	Major(4)	Catastrophic(5)
Probability @		1.00	2.00	3.00	4.00	5.00
Rare(A)	1.00	1 Low	2 Low	3 Low	4 Medium	5 Medium
Unlikely(B)	2.00	2 Low	4 Medium	6 Medium	8 High	10 High
Possible(C)	3.00	3 Low	6 Medium	9 High	12 High	15 High
Likely(D)	4.00	4 Medium	8 High	12 High	16 Extreme	20 Extreme
Almost Certain(E)	5.00	5 Medium	10 High	15 High	20 Extreme	25 Extreme

Back

Help

Configure Risk Score Matrix Score Display Options

Numerous options are available for the way scores are shown, including:

- **Risk Score** - in which case the Risk Score calculation is displayed to the user,
- **Category Score** - in which case the Category Scores for both the selected Probability and Consequence grades are displayed as a concatenation, e.g., 1A, 3B
- **Category** - in which case the risk category name is displayed, rather than a score.
- Or a **combination of two** of these things, for example Risk Score + Category.

DAMSTRA Settings / Risk Score Matrix Settings

Matrix Type: Multiplication
Matrix Grid: SAS

Probability & Consequence Category **Score Matrix** Impact Hint Hierarchy of Controls

Risk Score + Category
Risk Score + Category
Category Score + Category
Risk Score Only
Category Score Only

Rescore All Risk Assessment

	Insignificant(1)	Minor(2)	Moderate(3)	Major(4)	Catastrophic(5)
	1.00	2.00	3.00	4.00	5.00

Risk Score
Risk score calculation displayed:
20

Category Score
Probability and Consequence grades displayed as concatenation:
1A

Category
Risk category is displayed rather than score:
Extreme

Back

Help

Configure Risk Score Matrix

Custom Score Display

A 'custom' option allows each tile in the Risk Score Matrix to be independently configured with any grade name and score by clicking on a tile and entering the required values. If chosen, this will override the calculated Risk Scores and the range-based category names added to the *Category* tab.

In all cases, the score or category is displayed together with the colour defined in the *Category* tab.

The screenshot shows the DAMSTRA Risk Score Matrix configuration interface. A dialog box titled 'Edit Custom Display' is open, allowing users to configure a custom display for a specific tile. The dialog has two input fields: 'Custom Name' (set to 'Very Low') and a score field (set to '1'). Below the dialog is a table representing the Risk Score Matrix.

	Consequence @	Insignificant(1)	Minor(2)	Moderate(3)	Major(4)	Catastrophic(5)
Probability @						
Rare(A)	1.00	Low 1	Low 4	Low 6	Moderate 13	Significant 18
Unlikely(B)	2.00	Low 2	Low 5	Moderate 11	Significant 16	Significant 19
Possible(C)	3.00	Low 3	Moderate 9	Moderate 12	Significant 17	High 23
Likely(D)	4.00	Moderate 7	Moderate 10	Significant 15	High 21	High 24
Almost Certain(E)	5.00	Moderate 8	Significant 14	High 20	High 22	High 25

The interface includes a sidebar with navigation options: Settings / Risk Score Matrix, Matrix Type, Matrix Grid, Probability & Consequence, Category, and Score Matrix. A 'Custom' button is visible in the sidebar. The main table has a 'Back' button at the bottom right and a 'Help' button at the bottom right.

Configure Risk Score Matrix

Reordering and Rescoring

Where the Risk Score Matrix itself is displayed to Users while working on a Risk Assessment, this is laid-out with the 'Probability' grades along the vertical axis, and 'Consequence' grades along the horizontal. Options are available on the 'Score Matrix' tab to specify whether these axes should be displayed in ascending or descending order.

If changes are made to your Risk Score Matrix settings after risk assessments have been entered, these can be recalculated using the updated scoring scheme by **clicking** the "Rescore All Risk Assessment" button. Note that this may take some time to complete and should be carried out after hours to avoid a performance impact for your Damstra Safety users.

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Settings / Risk Score Matrix Settings

Matrix Type: Multiplication

Matrix Grid: 5x5

Probability & Consequence Category: **Score Matrix** Impact Hint Hierarchy of Controls

Custom [v] **Rescore All Risk Assessment**

		Consequence	Catastrophic(5)	Major(4)	Moderate(3)	Minor(2)
Probability			5.00	4.00	3.00	2.00
Almost Certain(E)	5.00		Extreme 50	High 22	High 20	
Likely(D)	4.00		High 24	High 21	Significant 15	
Possible(C)	3.00		High 23	Significant 17	Moderate 12	
Unlikely(B)	2.00		Significant 19	Significant 16	Moderate 11	
Rare(A)	1.00		Significant 18	Moderate 13	Low 6	

Configure Risk Score Matrix Impact Tab

The *Impact* tab is where we can define the picklist options that will be available to users in the 'Impact' field when entering a risk evaluation. All impacts to either the business or its workers that your Organisation would like to consider when evaluating a risk should be included here.

To add a new option, **click 'Add'**, enter the impact name, and **click 'save'**. The new Impact is displayed in the register and is now available for selection in Risk evaluations. To edit or delete an existing impact, **click 'Actions'**, then select the appropriate option.

The screenshot shows the 'Settings / Risk Score Matrix Settings' page in the DAMSTRA application. The 'Impact' tab is selected, displaying a list of impact categories. The table lists impacts from ID 1 to 15, including 'Financial', 'Business Operation', 'Personal Injury', 'Personal Illness', 'Property Damage', 'Equipment Damage', 'Environment', 'Product Damage', 'Public Relations', and 'Damage to Public Property'. Each row has an 'Actions' dropdown menu. The 'Add' button is highlighted in the top right corner. The 'Edit' and 'Delete' options in the 'Actions' dropdown for the first row are also highlighted. The bottom right corner features a 'Back' button and a 'Help' icon.

ID	Name	Actions
15	Damage to Public Property	Actions
9	Public Relations	Actions
8	Product Damage	Actions
7	Environment	Actions
6	Equipment Damage	Actions
5	Property Damage	Actions
4	Personal Illness	Actions
3	Personal Injury	Actions
2	Business Operation	Actions
1	Financial	Actions

Configure Risk Score Matrix Hint Tab

The *Hint* tab allows us to configure short definitions for each combination of impact category and probability or consequence that will be displayed when the user hovers over a question mark to reveal contextual help.

These hints are useful for giving guidance to users as they evaluate risk, ensuring a consistent approach to rating probability and consequence.

To enter a hint, simply **select** the impact category, then for both 'Probability' and 'Consequence', **select** a grade and **type** the hint to be shown.

The screenshot shows the 'Settings / Risk Score Matrix Settings' page in the DAMSTRA application. The 'Hint' tab is selected, showing configuration options for 'Probability' and 'Consequence'.

Settings / Risk Score Matrix Settings

- Matrix Type:** Multiplication
- Matrix Grid:** 5x5
- Tabs:** Probability & Consequence, Category, Score Matrix, Impact, **Hint**, Hierarchy of Controls
- Category:** Personal Injury
- Probability:**
 - Type:** Likely
 - Hint:** An injury will occur on average twice a week (Max 256 characters)
- Consequence:**
 - Type:** Catastrophic
 - Hint:** A person will be killed (Max 256 characters)

Buttons: Back, Help

Configure Risk Score Matrix Hierarchy of Controls Tab

The *Hierarchy of Controls* tab allows customisation of control definitions that the user will see when clicking on the 'Show Hierarchy of Controls' button on the 'Control Measures' tab. Simply enter the definition your Organisation uses for each of the six Control Types.

If your Organisation has a preferred diagram for these controls, this may be uploaded here, otherwise a default diagram will be displayed.

DAMSTRA

Settings / Risk Score Matrix Settings

Matrix Type: Multiplication

Matrix Grid: SX5

Probability & Consequence Category Score Matrix Impact Hint **Hierarchy of Controls**

Best Size: (253px)(162px)

Elimination
Remove the hazard, or practice, altogether (e.g. can the job be done from outside the confined space)

Substitution
Reduce the risk to the user by using a safer alternative (e.g. less toxic chemicals for cleaning)

Isolation
Isolate the source, transmission path or receiver by barriers, screens, walls, partition, separate storage and work areas

Minimise: Engineering Controls
Minimise, enclose and contain the hazard (e.g. Lock Outs, Fume cabinets or Fume Extractors for gases)

Minimise: Administrative Controls
JSA, Safe Work Procedures, Job Rotation, Training, Safety Rules and Signage

Minimise: PPE
Seen as the "Last line of defence" against hazardous situations. It should only be considered if all other methods are impractical.

Back

Help

Show all

