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Hazardous substances calculator

This guide explains how to use the *Hazardous Substances Calculator* (the Calculator) to create an inventory of the substances in your workplace and find out the majority of controls that apply to them.

The Calculator can help you to meet two of your duties under the Health and Safety at Work (Hazardous Substances) Regulations 2017 (the Regulations):

- If hazardous substances are present at your workplace, you must prepare an inventory. The Calculator helps you to prepare a compliant online inventory.
- If you have hazardous substances in your workplace, you must also put in place controls to manage the risks. When you use the Calculator to create an inventory of your hazardous substances, it provides a list of the majority of these controls.

The Calculator also provides links to guidance and relevant legislation.

This guide does not explain hazardous substance inventory requirements in detail. For more information, see our *Guide to Inventory Requirements for Hazardous Substances*.

Getting started

You can find the Calculator on the *Hazardous Substances Toolbox* website:

www.hazardoussubstances.govt.nz

Before using the Calculator, you need to accept a disclaimer about the Calculator.

The hazardous substance controls in the Calculator help increase workplace safety and improve compliance, but are not all the controls you may have to put in place.

The Calculator does not include the controls for:

- gases under pressure, such as cylinder testing requirements
- laboratories, such as laboratory construction and personnel requirements
- approved fillers, such as approved filler certification requirements
- tank wagons and transportable containers, such as tank wagon construction specifications
- fumigants, agrichemicals and vertebrate toxic agents, such as notification requirements and requirements for fumigation sites
- explosives
- containers and storage locations, such as detailed separation requirements or container construction specifications.

Additionally, the Calculator does not:

- deal with rules set by district, city or regional councils
- substitute or alter any New Zealand laws.

Once you accept the disclaimer, you have access to the Calculator landing page, where you can select from the following functions to enter your substances and/or review the controls that apply to them:

- Create New Inventory
- Update Your Inventory
- Search for a Substance.

Using the calculator

Follow the steps below to add a substance in **Create a New Inventory**, or **Update Your Inventory** or to **Search for a Substance**.

Create new inventory

Select this function to create a new inventory of substances in your workplace.

You will be asked whether the inventory is for substances in closed or open containers, and to choose a name for your own reference. If you have substances in both open and closed containers you will need to create two inventories.

The Calculator will create a new inventory and you will be assigned a personal identification number (PIN). You can only access this inventory using the PIN. Keep your PIN as it is unique and WorkSafe does not have access to it.

Search for a substance

Use this function to find out the controls that apply to substances without creating a new inventory. To search for a substance:

- select **Search for a Substance**
- select whether the inventory is for substances in closed or open containers
- follow the steps in the table under **Entering Substances into the Calculator** further below in this guide.

The lists of substances you create using **Search for a Substance** will not be saved and you will not be assigned a PIN. When you leave the search, you will lose the list of substances and controls that you have created during the session. You cannot download any list you create from **Search for a Substance** as an inventory.

Update your inventory

To return to a previously created inventory, insert the PIN into **Update Your Inventory**. After you enter your PIN, you can:

- review the substances in your inventory and the controls that apply to them
- add additional substances
- edit the details of substances you have already entered into the inventory
- delete substances.

Entering substances into the calculator

Add a substance

Select to begin adding a substance. Follow the steps in the table below to add substances to the Calculator.

If you only use the Calculator to **Search for a Substance** without creating a permanent inventory, you will see: **Add Another Substance**.

Have safety data sheets (SDS) for your substances available. They contain information you may need (eg UN number and hazard classification).

You can also use the *Workbook* to gather information about the substances before using the Calculator. You can find the *Workbook*: www.hazardoussubstances.govt.nz

Other calculator functions

Print controls report

Select to create a report of all the inventory information or controls contained in the Calculator. You can print a controls report from **Create New Inventory**, **Update Your Inventory** or **Search for a Substance**.

You can print or download the report as a PDF. It contains the following information:

- Information about the location, quantity and classifications of the substances.
- Hazardous Substances Controls and Messages (see below)
- Contributing Substances (which substances trigger the controls)
- Links to the Regulations that trigger controls.

An example of a message in Hazardous Substances Controls and Messages is:

'Labelling - All hazardous substances should be appropriately labelled including substances you have decanted, transferred, manufactured (even for your own use) or have been supplied to you.'

Email PIN

Select this function to send your PIN to your email address. Remember WorkSafe cannot retrieve your PIN, so do not lose it.

This function is not available if you only use the Calculator to **Search for a Substance** without creating an inventory.

SEQUENCE	SUBSTANCE NAME	GROUP STANDARD AND HAZARDOUS WASTE	
1 SEARCH	As you enter the name into the Calculator, the substance and approval number appear. Select the substance.	If you do not have the substance name, choose the applicable Group Standard, for example: Additives, Process Chemicals and Raw Materials; Combustible. You can also select Hazardous Waste.	
2 SUBSTANCE NAME	The substance name enters automatically.	Enter the name you use to refer to or identify the substance	
3 UN NUMBER	Enter the UN number (if known). See Section 14 of the SDS.		
4 STORAGE AND SEGREGATION REQUIREMENTS	Enter any specific storage and segregation requirements. See Sections 7 and 10 of the SDS. Enter any information you consider relevant.		
5 SUBSTANCE LOCATION	Select the substance location: <ul style="list-style-type: none"> - Dangerous goods store - in a building - Dangerous goods store - separate building - Indoor storage cabinet - Open outdoor area - Workroom - Other location: Enter a name for the location. 		
6 SUBSTANCE CLASSIFICATION	If the substance name is already entered into the Calculator, you will not need to enter its classifications	If you use the Group Standard, the Calculator will ask if you know the substance's classifications.	
		If you DO , enter all the classifications that apply	If you DON'T , enter: <ul style="list-style-type: none"> - the UN Class, and - the UN Packing Group (See section 14 of the SDS)
7 SUBSTANCE STATE	If asked, enter the state of the substance (eg solid, liquid, gas - permanent or non-permanent)		
8 STATIONARY CONTAINERS	If asked, enter whether the substance is held in a stationary container		
	If you select YES , the Calculator will ask you for the type of stationary container, for example: <ul style="list-style-type: none"> - above or below ground tanks or process containers - dispensers for retail sale - tanks that include a burner, dispenser or vaporiser - internal combustion engines with or without a service tank. 	If you select NO , the Calculator will ask you directly for the maximum capacity.	
9 CAPACITY AND MAXIMUM AMOUNT	If applicable, the Calculator will ask for the water capacity of the stationary container.		
	The Calculator will ask for the maximum amount held, in kilogrammes or litres, as applicable.		

ADD THIS SUBSTANCE

The substance and the information about its controls will be added to the Calculator.

TABLE 1: Adding substances to the Calculator

Download inventory

This function lets you download and save the inventory as an Excel spreadsheet. This format will help you keep an easy to update electronic record of your substances.

This function is not available if you only use the Calculator to **Search for a Substance** without creating an inventory.

Create a new search

This function is only available under **Search for a Substance**. You will lose the list of substances and be taken back to the beginning of the search process.

Start over

This function returns you to the Calculator landing page. It saves your inventory under the existing PIN number, but also allows you to create a new inventory or update one.

If you select this from **Search for a Substance** you will lose the list of substances you have created.

What information does the calculator provide?

After you enter your substance information, the Calculator displays information about substances in two columns: Inventory List and Hazardous Substance Controls.

Inventory list

This column lists all the substances you have entered into the Calculator including the name you have assigned to substances under a Group Standard.

When you expand the tab for each substance, you can review the information you have entered. The Calculator will also identify any incompatibilities with other substances in your inventory and any applicable **special rules** (see further below).

Hazardous substance controls

Whenever a hazardous substance is present in your workplace, you must put the controls for it in place. These controls come from the Regulations and the Hazardous Substances and New Organisms Act 1996 (HSNO).

Some controls (**generic controls** in the Calculator) are required for every substance. Others apply if substances are present in your workplace over threshold quantities.

The first entry of the information that the Calculator provides about your substance controls column will be the generic controls. These include:

- Inventory

- Personal Protective Equipment
- Safety Data Sheets
- Training and Supervision of Workers
- Labelling and Packaging.

After the generic controls, the controls triggered if you use, handle, manufacture or store some hazardous substances over specific threshold quantities are listed:

- Certified Handlers
- Emergency Response Plans
- Fire Extinguishers
- Hazardous Areas
- Location Compliance Certificates
- Secondary Containment
- Secured Substances
- Signage
- Stationary Container Systems
- Tracking.

For more information about any of these controls, see *Your Practical Guide* to working safely with hazardous substances.

Many controls also have dedicated quick guides, available from our website, or other tools, such as the *Emergency Response Flipchart*, available from the Hazardous Substances Toolbox website.

The information displayed for each control begins with how the control applies to you (eg 'You need a certified handler') followed by a link to the practical guide. For example, for the certified handler control, there will be a link to the Compliance Certificates section of *Your Practical Guide* to working safely with hazardous substances.

There is also information on how the control was triggered, listing the substance(s) and classifications that triggered the control, with a link to the relevant Regulation(s).

Special rules

If any special rules apply to the substance, they will be listed. A special rule could be exceptions to the usual controls that apply to a substance. For example, the Calculator will tell you that for unleaded petrol an emergency response plan is not required if:

- less than 2000 L is stored at a farm and located so that any spillage will not endanger any building or flow into any stream, lake or natural water
- less than 2000 L is stored in a tank wagon or secure containers, each individual container with a capacity of less than 250 L, and
 - located so that any spillage will not endanger any building or flow into any stream, lake or natural water
 - the proposed or actual duration of storage is for a continuous period of less than 14 days.

GLOSSARY

TERM	DEFINITION
Approval number	<p>An approval number is assigned under HSNO to all hazardous substances in New Zealand. Every hazardous substance imported into New Zealand or manufactured in New Zealand must be approved under HSNO and have an approval number.</p> <p>For more information on approval numbers, see <i>Your Practical Guide to working safely with hazardous substances</i>.</p>
Group standard	<p>A Group Standard is an approval for a group of hazardous substances of a similar nature, type or use. Most products that small businesses use are approved under group standards (except for pesticides, veterinary medicines, timber treatment chemicals, vertebrate toxic agents and explosives).</p> <p>If a product's hazard classifications and uses are covered by a Group Standard, an importer or manufacturer can assign it to the Group Standard.</p> <p>For more information on group standards, see <i>Your Practical Guide to working safely with hazardous substances</i>.</p>
Safety data sheet	<p>An SDS provides information on the hazards posed by a hazardous substance and safe ways to use, store, transport and dispose of it. You need to obtain an SDS for each hazardous substance from its manufacturer, importer or supplier:</p> <ul style="list-style-type: none">- when it is first supplied to you, or- if five years have passed since the last time it was supplied or- after any changes to its SDS.

Further information

For more information about what content the inventory needs to include, see our *Guide to Inventory Requirements for Hazardous Substances*.

For more information about safety data sheets, see our *Guide to Safety Data Sheets in the Workplace*.

You can find the tools mentioned in this guide, such as the *Hazardous Substances Calculator* and the *Workbook* at the Hazardous Substances Toolbox Website: www.hazardoussubstances.govt.nz

Abbreviations

TERM	DEFINITION
HSNO	Hazardous Substances and New Organisms Act 1996
PIN	Personal Identification Number
SDS	Safety Data Sheets