



**THE WORKBOOK**  
**WORKING SAFELY WITH**  
**HAZARDOUS SUBSTANCES**

---

**WORKSAFE**  
NEW ZEALAND | MAHI HAUMARU  
AOTEAROA



## WHAT DOES THIS WORKBOOK GIVE YOU?

This workbook is designed to be used with *Your Practical Guide* and the *HSNO Calculator*. It gives you instructions and a form for your hazardous substances inventory. The form is designed so that you record all of the information needed to use the *HSNO Calculator*.

This workbook also provides you with a training checklist for employees and a checklist for getting a location test certificate from a test certifier. *Your Practical Guide* provides you with information about training your staff and location test certificates.

# PREPARING A HAZARDOUS SUBSTANCES INVENTORY



There's no one size fits all when it comes to working safely with hazardous substances. What you need to do will always depend on what substances you have and how much you've got. So, preparing an inventory is your first step in the 5 Steps to Safety.

It's important to note that some of the controls needed at your workplace are based on the total amount of hazardous substances used and stored there. So, you need to complete your entire inventory before using the *HSNO Calculator*.

Most small businesses will only need one inventory for closed substances. You will need a second inventory if some of your hazardous substances are in open vats, baths, pots or tanks. This is because there are greater risks when you have hazardous substances in open containers and the rules are slightly different.

## WHERE TO START

### 1. RECORD ALL HAZARDOUS SUBSTANCES AROUND YOUR WORKPLACE

Walk around your workplace and record all of the hazardous substances used and stored in different areas in the *Hazardous Substances Inventory* on pages 6 and 7.

#### FOR EACH SUBSTANCE RECORD:

The name

The amount

Whether it's a gas, solid or liquid

The size of the container

The location

Make notes about the use of each substance, how it's used and who uses it. This will help you assess which of your staff are exposed to hazardous substances.

What is the maximum amount of each substance you are likely to ever have at your workplace? Use this amount in your inventory. Add up the amount in each container (but see note below!)

If you have a flammable liquid stored in containers that are 5 litres or less in size and in containers more than 5 litres in size you need to include two entries for that substance in your inventory. See the example for acetone on page 5.

# PREPARING A HAZARDOUS SUBSTANCES INVENTORY

## 2. GET A SAFETY DATA SHEET FOR EACH HAZARDOUS SUBSTANCE

Check whether you have a current safety data sheet (sometimes known as a material safety data sheet) for each hazardous substance. If you don't have a safety data sheet, ask your supplier for one. Also ask your supplier to give you an updated safety data sheet if yours is more than five years old.

From the information in the safety data sheet, write down:

- the HSNO approval number or the name of the group standard (usually found in *Section 15: Regulatory Information*)
- if available, the HSNO classifications (usually found in *Section 2: Hazards Identification* or *Section 15: Regulatory Information*)
- (if the HSNO classifications are not available) the UN class and packing group (usually found in *Section 14: Transport*), and
- any specific storage requirements (usually found in *Section 7: Handling and Storage*. For example, "keep away from oxidising agents").

If you are uncertain about these numbers or classifications, refer to the *Hazard classifications, approvals and controls* section on page 7 of *Your Practical Guide* for more information.

If you cannot locate the HSNO approval number or the name of the group standard for a product, contact your hazardous substance supplier.

The *HSNO Calculator* includes all approved hazardous substances **except** explosives. The easiest way to enter substances into the calculator inventory is to use the HSNO approval number which can be found in Section 15 of the Safety Data Sheet. The commonly used substances in the *HSNO Calculator* are:

|                        |                      |
|------------------------|----------------------|
| Acetone                | Oxygen               |
| Acetylene              | Perchloroethylene    |
| Butane                 | Petrol (unleaded)    |
| Chlorine               | Potassium nitrate    |
| Diesel                 | Propane              |
| Ethanol                | Sodium hydroxide     |
| Isopropanol            | Styrene              |
| Kerosene               | Sulphuric acid > 10% |
| LPG                    | Toluene              |
| Methyl ethyl ketone    | Trichloroethylene    |
| Methanol               | White spirit         |
| Methyl isobutyl ketone | Xylene               |
| Mineral turpentine     |                      |

## 3. USE THE HSNO CALCULATOR TO WORK OUT WHICH OF THE FOLLOWING KEY HSNO CONTROLS YOU NEED TO HAVE IN PLACE

- Fire extinguishers
- Signs
- Approved handler
- Location test certificate
- Hazardous atmosphere zones
- Emergency response plan
- Secondary containment.

## HAZARDOUS SUBSTANCES INVENTORY

# EXAMPLE INVENTORY



YOUR INVENTORY PIN: 8VMJ77

*The HSNO Calculator will assign you with a pin so you can access your inventory again in future.*

NAME OF INVENTORY: Workshop

DATE: 06 / 05 / 2013

| Name of product      | Total amount (Kg, L) | Solid, liquid or gas | Size of the container | Location                   | HSNO approval number and name of group standard<br>UN class and packing group                                    | HSNO classification (if available)                             | Special storage requirements       |
|----------------------|----------------------|----------------------|-----------------------|----------------------------|--|--|------------------------------------|
| Acetone              | 5 L                  | Liquid               | 5 L                   | Flammable goods cabinet    | HSR001070  | Commonly used substance, information already in the calculator | Incompatible with oxidising agents |
| Acetone              | 40 L (4x10L)         | Liquid               | 10 L                  | Hazardous Substances store | HSR001070  | Commonly used substance, information already in the calculator | Incompatible with oxidising agents |
| Polyurethane         | 10 L                 | Liquid               | 10 L                  | Flammable goods cabinet    | HSR002662 - Surface Coatings and Colourants (Flammable) Group Standard 2006<br>UN class: 3<br>Packing Group: III | 3.1C, 6.1E, 6.3A, 6.4A, 6.5A, 6.5B, 6.8B, 6.9A, 9.1D           | Incompatible with oxidising agents |
| Polyurethane thinner | 6 L                  | Liquid               | 1 L                   | Flammable goods cabinet    | HSR002650 - Solvents (Flammable) Group Standard 2006<br>UN class: 3<br>Packing Group: II                         | Not available  | Incompatible with oxidising agents |

# HAZARDOUS SUBSTANCES INVENTORY



YOUR INVENTORY PIN: \_\_\_\_\_

*The HSNO Calculator will assign you with a pin so you can access your inventory again in future.*

NAME OF INVENTORY: \_\_\_\_\_

DATE:     /     /

| Name of product | Total amount (Kg, L) | Solid, liquid or gas | Size of the container | Location | HSNO approval number and name of group standard<br>UN class and packing group | HSNO classification (if available) | Special storage requirements |
|-----------------|----------------------|----------------------|-----------------------|----------|---|------------------------------------|------------------------------|
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |

# HAZARDOUS SUBSTANCES INVENTORY



| Name of product | Total amount (Kg, L) | Solid, liquid or gas | Size of the container | Location | HSNO approval number and name of group standard<br>UN class and packing group | HSNO classification (if available) | Special storage requirements |
|-----------------|----------------------|----------------------|-----------------------|----------|---|------------------------------------|------------------------------|
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |
|                 |                      |                      |                       |          |   |                                    |                              |

# TRAINING WORKSHEET



DATE: \_\_\_\_\_

HAZARDOUS SUBSTANCES USED: \_\_\_\_\_

EMPLOYEE: \_\_\_\_\_

\_\_\_\_\_

JOB TASKS: \_\_\_\_\_

\_\_\_\_\_

## CHECKLIST – WHAT YOUR STAFF NEED TO KNOW

| Training topic   | Date completed | Signed by trainer |
|--|----------------|-------------------|
| <input type="checkbox"/> Is the employee aware of the harm that can be caused from each hazardous substance they use at work?  |                |                   |
| <input type="checkbox"/> Is the employee aware of how to safely store, use or dispose of each substance they use?  |                |                   |
| <input type="checkbox"/> Does the employee understand what control measures are in place at the workplace to reduce exposure and keep safe?  |                |                   |
| <input type="checkbox"/> Has the employee been provided with the correct safety equipment and personal protective equipment?   |                |                   |
| <input type="checkbox"/> Has the employee been trained to use the safety equipment and personal protective equipment?  |                |                   |
| <input type="checkbox"/> Does the employee know where the safety data sheets are kept and have access to them?   |                |                   |
| <input type="checkbox"/> Does the employee know what to do in an emergency involving the substances they use?  |                |                   |
| <input type="checkbox"/> Has the employee been trained to use the first aid equipment to deal with splashes and other incidents?   |                |                   |
| <input type="checkbox"/> Does the employee understand the importance of asking their supervisor questions if they are unsure about how to safely use or store a hazardous substance? |                |                   |

For information about how to keep safe with hazardous substances and staff training, see pages 13 – 22 of *Your Practical Guide*.



# LOCATION TEST CERTIFICATE CHECKLIST



## BEFORE ISSUING A LOCATION TEST CERTIFICATE, THE TEST CERTIFIER WILL CHECK THAT YOU HAVE:

- a list (inventory) of hazardous substances that require a location test certificate
- a site plan of your workplace showing:
  - all hazardous substance locations
  - hazardous atmosphere zones, and
  - controlled zones
- fire extinguishers available, if needed, and:
  - you have the correct number
  - you have the correct type, and
  - they are located no more than 30 metres away from where your oxidising or flammable products are stored
- stored your hazardous substances safely in areas that can be secured
- incompatible substances stored separately
- established and managed controlled zones
- established and managed hazardous atmosphere zones
- an approved handler available, if needed
- procedures in place to avoid a fire from starting, if you store flammable or oxidising substances
- signs in place, if needed
- prepared an emergency response plan, if needed
- secondary containment in place, if needed, and
- told your local WorkSafe office where your workplace is and what hazardous substances and amounts of those substances are used and stored there.

For information about location test certificates, see pages 55 and 56 of *Your Practical Guide*.







First published May 2013  
Updated and republished  
August 2015

[www.hazardoussubstances.govt.nz](http://www.hazardoussubstances.govt.nz)

---

**WORKSAFE**  
NEW ZEALAND | MAHI HAUMARU  
AOTEAROA

[newzealand.govt.nz](http://newzealand.govt.nz)