

Zero Hazardous Waste Toolkit



Zero Hazardous Waste Guide & Zero Hazardous Waste Directory Of Contacts

Helping you reduce your hazardous waste

1 INTRODUCTION

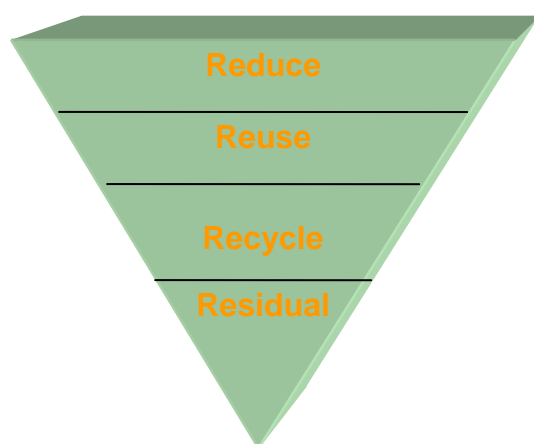
What Is The Zero Hazardous Waste Toolkit?

The Zero Hazardous Waste Toolkit aims to prevent the hazardous wastes that we use from seriously and irrecoverably harming people, property and our environment. The Zero Hazardous Waste Toolkit enables you to reduce the quantity of hazardous waste you produce and appropriately manage and divert hazardous waste from landfill.

Risks to human health and the environment can be significantly reduced by minimising and appropriately managing hazardous wastes.¹ The Queenstown Lakes District Council (Council) has developed the Zero Hazardous Waste Toolkit in two parts. These consist of the Zero Hazardous Waste Guide and the Zero Hazardous Waste Directory of Contacts. These provide you with the necessary information and tools to:

- Identify hazardous waste;
- Ensure hazardous wastes can be treated and disposed of safely and appropriately, eliminating potential adverse effects on people, property and the environment;
- Assist users and producers of hazardous waste to appropriately manage and dispose of hazardous waste by using the relevant contacts provided in the Directory of Contacts; and,
- Use the waste management hierarchy of Reduce, Reuse, Recycle and Residual Management for hazardous waste shown in Figure 1. This shows that the most preferred waste management Reduce is at the top of the hierarchy and the least preferred option Residual is at the bottom.

The waste hierarchy consists of four major stages:



- **Reduce** – reduce the quantity of waste produced;
- **Reuse** – reuse items wherever possible;
- **Recycle** – recycle old materials into new products; and
- **Residual** – dispose of residual waste to landfill.

The principles of the waste hierarchy should be adopted as the basis for any waste management plan. It has been used as a prerequisite in this Zero Hazardous Waste Toolkit.

Why

Queenstown Lakes District is the fastest growing District in New Zealand. Our 20-year growth forecasts suggest this trend will continue. Economic growth and waste are inextricably linked. With an anticipated increase in the number of residents and tourists attracted to the area, the quantity of waste produced will inevitably rise substantially.

¹ Ministry for the Environment, Wellington, The New Zealand Waste Strategy; 2002, p.25.

Queenstown Lakes District Council (Council) is a Zero Waste Council committed to developing an integrated waste management system that diverts significant quantities of material from landfill to alternative and more sustainable waste management options. In order to achieve this vision and to maintain and fulfill community expectations and outcomes into the future the Council has adopted a comprehensive Waste Management Strategy (Strategy). The Strategy outlines the steps the Council is taking to introduce 43 waste minimisation initiatives that will impact upon all waste generated in and transported to the District, including hazardous waste. Waste minimisation initiative No 14 in the Council's Strategy requires "*hazardous waste reduction*".²

In order to do this, one of the Key Action Areas of the Strategy regarding hazardous waste is to "*work towards providing appropriate disposal solutions for the community*".³

How

The Zero Hazardous Waste Toolkit consists of two parts, the Zero Hazardous Waste Guide and the Zero Hazardous Waste Directory of Contacts.

Before safely and appropriately diverting your hazardous waste from landfill you need to be able to establish if the material is hazardous. The Zero Hazardous Waste Guide contains information that will assist you to reduce the hazardous waste that you produce. It will also enable you to identify and appropriately manage hazardous waste.

The Zero Hazardous Waste Directory of Contacts will advise where to take your hazardous waste for appropriate recycling, reuse and disposal. Both parts of the Zero Waste Hazardous Toolkit are outlined below:

Part One: Zero Hazardous Waste Guide

- A definition of hazardous waste you can work with;
- Tools to help you recognise hazardous waste;
- Information on the legislative framework of hazardous waste;
- Current hazardous waste management options available; and
- Alternatives to hazardous waste.

Part Two: Zero Hazardous Waste Directory of Contacts

- Hazardous waste materials are grouped and listed alphabetically with a reference to local service providers and contacts; and
- Pollution response information is provided so you know what to do in the event of a hazardous waste spill or incident.



Poison or Toxic

This symbol indicates materials are poisonous or toxic – materials, if ingested, can cause serious illness or death, in addition to cancer, birth defects, or other chronic health problems⁴

² QLDC Waste Management Strategy 2003: www.qldc.govt.nz

³ QLDC Waste Management Strategy 2003: www.qldc.govt.nz

⁴ <http://www.wildeducation.org>

Zero Hazardous Waste



Zero Hazardous Waste Guide



CONTENTS PAGE

1.	HAZARDOUS WASTE DEFINITION	1
2.	REGULATION	3
3.	COUNCIL HAZARDOUS WASTE SERVICES	3
4.	ALTERNATIVES TO HAZARDOUS WASTE	5
5.	NEED FURTHER INFORMATION	8



**Incinerating 10,000 tons of waste creates 1 job, landfilling it creates 6 jobs,
and recycling it creates 36 jobs⁵**

⁵ Zero Waste New Zealand Trust: www.zerowaste.co.nz

1 HAZARDOUS WASTE DEFINITION

1.1 What is Hazardous Waste?

The primary purpose for a hazardous waste definition is to help the community establish whether waste is hazardous or potentially hazardous.

The possible effects of hazardous waste are uncertain and vary greatly, depending on the nature and volume of the substance and the receiving environment. However, if incorrectly managed the possible effects from toxic and hazardous substances on humans, animals and plants include:

*“...mortality; adverse effects on reproduction; causing cancer; causing deformities and genetic mutations; causing other diseases; accumulation in the environment and living tissue (this may have consequences in the food chain); indirect effects on ecosystems”.*⁶

Currently there is no statutory or nationally accepted single definition of hazardous waste. Hazardous waste has been defined simply as waste that presents a present or future threat to humans or the environment.⁷

A detailed ‘working’ definition has been developed by the Ministry for the Environment,⁸ and it provides the following technical list of hazardous characteristics that can be used as a basis to determine whether a waste should be considered hazardous:

- *Explosiveness* e.g. flares, fireworks
- *Flammability* e.g. paints, varnishes, button cell batteries
- *Capacity to oxidize* e.g. chemicals
- *Toxicity* e.g. paints, asbestos, household cleaners, used oil
- *Corrosiveness* e.g. wet cell batteries, metal finishing
- *Eco-toxicity* e.g. chemicals, agrichemicals, tyres, heavy metals
- *Infectiousness* e.g. medical/first aid waste
- *Radioactivity* e.g. smoke alarms⁹]

A definition of the hazardous characteristics listed above is provided in Appendix A.

The following definition has been formulated to assist you in determining whether waste is hazardous or potentially hazardous:

Hazardous waste refers to any waste materials that are flammable, explosive, oxidising, corrosive, toxic, ecotoxic, radioactive or infectious, which have the potential to harm the community and the environment.

⁶ Ministry for the Environment, Wellington; *National Waste Data Report*, May 1997, pg.19.

⁷ Centre for Advanced Engineering (CAE), University of Canterbury, Christchurch; *Our Waste: Our Responsibility*; 1992.

⁸ Ministry for the Environment, Wellington; *Guidelines for the Management of Hazardous Waste, Module 1: Identification and Record-keeping*, June 2002.

⁹ Smoke alarms contain a small amount of radioactive material.

1.2 Identification Flow Chart

Hazardous waste can be difficult to identify. It may not be immediately obvious that the waste you are handling is potentially hazardous. Figure 2 is designed to help you determine whether or not the waste you are managing is hazardous.

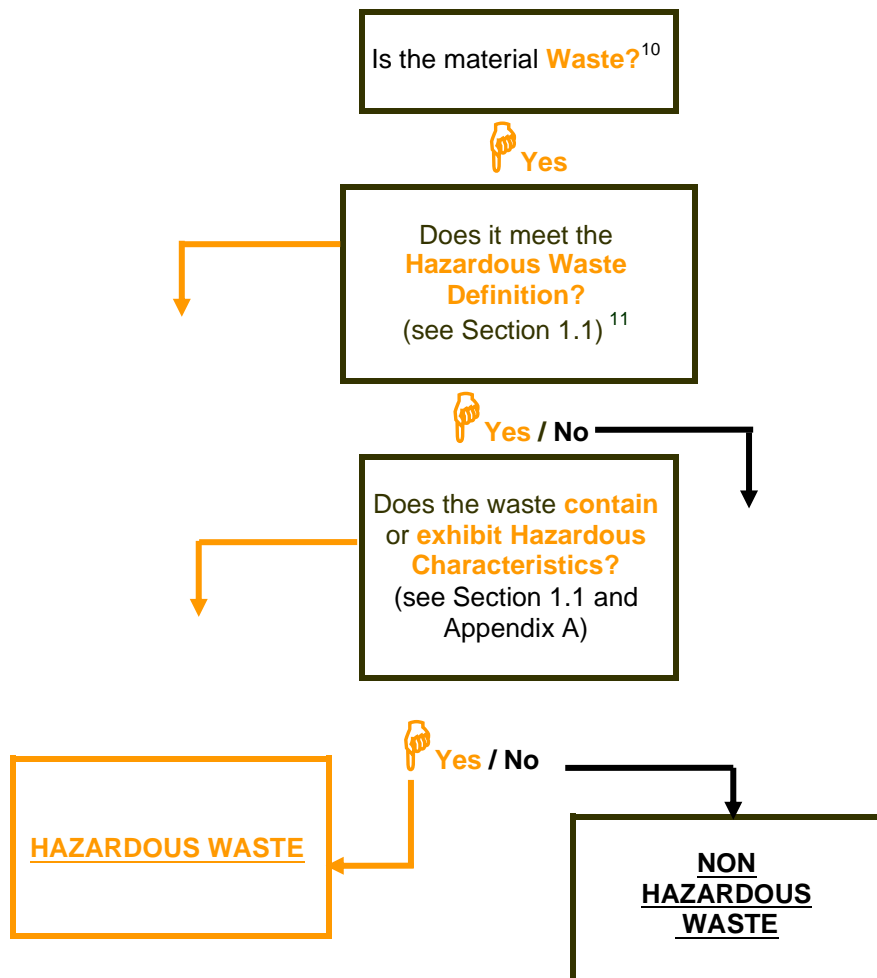
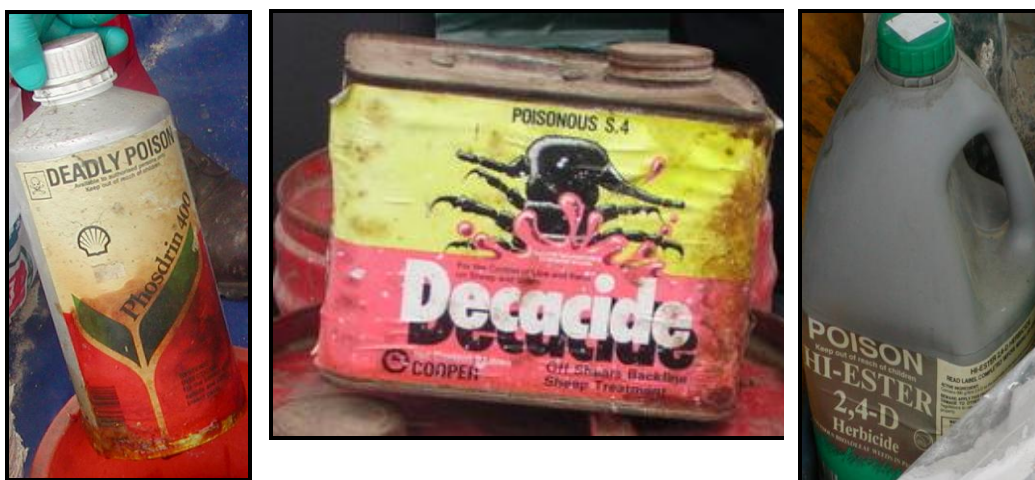


Figure 2: A Simple Hazardous Waste Identification Chart



¹⁰ Waste is material unwanted, unvalued and no longer required by its owner.

¹¹ Also, check out www.mfe.govt.nz/issues/waste/ and go to the 'NZ waste list' to see if a produce is considered hazardous.

2 REGULATIONS

2.1 Legislative Requirements

The management of hazardous waste in the Queenstown Lakes District is directed by a mix of statutory requirements, policy and regulatory tools. Every territorial authority in New Zealand has been mandated by the Waste Minimisation Act 2008 to adopt a waste management and minimisation plan to promote *'effective and efficient waste management and minimisation within its district'*.¹² The Waste Minimisation Act 2008 provides for audit procedures and reporting, compelling territorial authorities to set specific minimisation targets.

The Local Government Act 2002 requires territorial authorities to prepare Waste Management Plans that consider the following methods of waste management and minimisation: Reduction, Reuse, Recycling, Recovery, Treatment and Disposal.

Statutory requirements for solid and hazardous waste management are encompassed by other important statutes including the Health Act 1956, Hazardous Substances and New Organisms Act 1996 and the Resource Management Act 1991.

Territorial authorities are also directed by policy and regulatory tools such as international agreements and obligations and national standards and strategies. The Council's Waste Management Strategy 2003 is aligned with the New Zealand Waste Strategy 2002¹³ which sets specific hazardous and special waste targets for local authorities to work towards. The Council's Strategy identifies hazardous waste as one component of five major waste streams and waste minimisation initiative Number 14 sets the direction required for hazardous waste, stating Council will ensure "...*hazardous waste reduction*".¹⁴

3 COUNCIL HAZARDOUS WASTE SERVICES

The Council's waste management contractors do not accept hazardous waste at the transfer stations or landfill. However, the Council's Waste Analysis Survey 2002 shows that residential and commercial hazardous waste materials made up 1% of the District's waste stream disposed to landfill.¹⁵

3.1 Hazardous Waste Amnesty

The Council holds an Annual Hazardous Waste Amnesty in May each year. The annual hazardous waste drop-off service will be held on consecutive days at Frankton and Wanaka transfer stations. This service will be provided for the community to drop off hazardous waste material free of charge. The hazardous waste will be appropriately managed and sorted for safe recycling and disposal.

The Hazardous Waste Amnesty will be carried out at the Frankton and Wanaka transfer stations during the following opening hours:

Frankton Transfer Station
110 Glenda Drive
Frankton Industrial Estate
8.00 am to 5.00 pm

Wanaka Transfer Station
Ballantyne Road
Wanaka
11.30 am to 3.30 pm

¹² New Zealand Government Printer, Wellington; Waste Minimisation Act 2008, p.29-30.

¹³ Ministry for the Environment, Wellington, *The New Zealand Waste Strategy; 2002*

¹⁴ QLDC Waste Management Strategy 2003: www.qldc.govt.nz

¹⁵ QLDC Waste Management Strategy 2003: www.qldc.govt.nz

Hazardous wastes that will be **Accepted** and **Not Accepted** are as follows:

ACCEPTED HAZARDOUS WASTE:

Household/Commercial Products

- ✓ Chemicals
- ✓ Kerosene
- ✓ Paint & paint strippers
- ✓ Pool chemicals
- ✓ Solvents & turpentine
- ✓ Fuels
- ✓ Oven, toilet, drain cleaners
- ✓ Poisons
- ✓ Stain removers
- ✓ Vegetable oils

Garden Products

- ✓ Fertilisers
- ✓ Herbicides & Weed Killers
- ✓ Pesticides
- ✓ Timber preservatives
- ✓ Fungicides
- ✓ Insecticides
- ✓ Timber treatment
- ✓ Timber varnishes

Vehicle Products

- ✓ Antifreeze
- ✓ Degreasers
- ✓ Fuels
- ✓ Brake Fluid
- ✓ Lubricants

NON ACCEPTED HAZARDOUS WASTE:

- | | |
|------------------------------|---|
| X Asbestos | See Directory of Contacts for further information |
| X Batteries | See Directory of Contacts for further information |
| X Electronic Waste | See Directory of Contacts for further information |
| X Fluorescent Light Fittings | See Directory of Contacts for further information |
| X LPG Gas Cylinders | See Directory of Contacts for further information |
| X Mineral Oil | See Directory of Contacts for further information |
| X Mobile Phones | See Directory of Contacts for further information |
| X Pharmaceuticals | See Directory of Contacts for further information |

3.2 Other Hazardous Waste Services provided by the Council

See the Zero Hazardous Waste Directory of Contacts for information on hazardous waste materials that will be accepted at the Wakatipu Recycling Centre, Wanaka Wastebusters, Frankton and Wanaka transfer stations and a range of other hazardous waste service providers.



4 ALTERNATIVES TO HAZARDOUS WASTE

What can you do to avoid producing or reducing and reusing hazardous waste? Try to:

Avoid using hazardous products: Check products for hazard symbols and potentially hazardous ingredients;
Look for alternatives (see section 3.1 for a comprehensive list of cleaning alternatives to create a safe and chemical free home);
Check the Hazardous Waste Identification Chart to determine of materials are hazardous.

Reduce if there is no alternative: Choose carefully, use rechargeable batteries for example;
Buy refills and in amounts that you immediately require.

Reuse to reduce waste: If you no longer require your hazardous material, try to find it another home;
Reuse empty containers.

4.1 How to Create a Safe and Chemical Free Home

Have you ever taken a close look at the ingredients of your household cleaning or laundry products? If you have you probably found a long list of chemicals and synthetic materials many of which may be harmful to humans and the environment.

- You can reduce the number of chemicals you use in your home by purchasing environmentally-friendly products from your local supermarket. Remember to look for products that are not petroleum-based, contain no phosphates, chlorine bleaches or synthetic perfumes and are not coloured.
- An even better and more cost effective way to minimise chemicals in your home is to use every day products such as vinegar, lemon and bicarbonate of soda to effectively and safely clean your home.

Removing chemicals from your home not only provides you and your household with positive health benefits it also means you are not putting hazardous chemicals into our drains and sewers which can have negative effects on our unique environment.

4.1.1 Chemical Free Cleaning Products

Most of the products listed below can be purchased at your supermarket or local hardware store. You may need to look around though as they are not always found in the household cleaning section.

Baking soda or bicarbonate soda – cleans, deodorises and neutralises and is a great abrasive cleaner. Punch holes in the top of an old jar to make an easy to use shaker.



Borax – a naturally occurring mineral salt that can be used as a stain remover, deodorant, fabric softener. Borax is also good for pest control.

Eucalyptus or tea tree oil – can be used as an antiseptic, disinfectant and deodorant.

Lemon juice – a mild bleaching agent, deodorant and general cleaning agent.

Micro fibre cleaning cloths – can be used on all surfaces, particularly good for mirrors and glass. They can be washed clean again and again.

Pure soap (eg Sunlight or Velvet) – great all purpose cleaner that is 100% biodegradable, free of heavy fragrance and colour and unlikely to cause skin irritations.

Washing soda or sodium carbonate – water softener, stain remover, degreaser and can also be used to clean drains. Not for use on wool silk, vinyl or aluminium.

White vinegar – a mild acid which neutralises grease and soap residues. It is also an anti mould agent, a mild disinfectant, a bleach and a deodorant.

Vegetable or olive oil – great for polishing wood and leather

4.1.2 Chemical Free Cleaning Tips

Baths and ceramic basins: Apply a paste of baking soda and water and wipe clean with a moist cloth. Rinse any residue off with water and polish dry with a soft cloth.

Carpet: To deodorise sprinkle with bicarbonate soda using a sieve or colander from the kitchen, brush into the carpet with a soft brush or broom, leave for an hour or overnight and then vacuum.

For stains sprinkle baking soda on the spot, then pour on some vinegar and watch it bubble. Leave to dry, then vacuum. Always test the colour fastness of your carpet on a small patch first.

Floors – timber, cork, slate, tiles: Add 1 cup of vinegar to half a bucket of hot water and mop as usual.

Fridges and freezers: A few drops of vanilla essence with water in a small bowl or a few teaspoons of bicarbonate soda will absorb food smells and deodorise your fridge. Wipe out regularly with vinegar to remove bacteria and food spills.

Furniture: Mix olive oil (or other vegetable oil) with vinegar in equal parts to make a polish for wooden furniture. The vinegar gently cleanses the wood while the oil provides a protective coating and natural sheen.

Kitchen benches and sinks: There is no need to use chemicals to clean any surface or area that has come into contact with food. To clean sprinkle bicarbonate soda onto surfaces and wipe clean with a damp sponge or cloth. Wipe the residue off with a clean cloth rinsed in water.

Laundry: Make your own washing powder by mixing 1 cup soap flakes with 1/2 cup washing soda. To bleach clothes add ½ cup of borax to the wash and dry in the sun. Lemon juice is also effective bleach.

Mould: Wipe vinegar onto affected surfaces, leave overnight and scrub off the next morning. If mould persists use dry bicarbonate soda as an abrasive cleaner and then rinse with vinegar. An old toothbrush works well for cleaning grouting.

Microwave: Place a few teaspoons of bicarbonate soda in a cup of water and heat until boiling. Leave for a few minutes then wipe with warm water or vinegar.

Saucepans – burnt: Cover with a wet paste of bicarbonate and water or vinegar. Put the lid on and leave overnight. Stains will usually lift off in the morning. Boiling

bicarbonate and vinegar in the pot and leaving to cool before cleaning is also quite effective.

Showers and tiles: To remove soap scum from glass prepare a paste of salt and lemon juice and rub with a scourer then rinse clean. Use the same paste on shower curtains, leave for an hour before rinsing and hanging out to dry in the sun.

Stainless steel (sinks, pots, surfaces): Apply bicarbonate soda with a damp sponge or cloth and leave to dry. Polish off with a soft dry cloth.

Toilet: Pour 1 cup of vinegar into the bowl. Leave for ½ an hour then brush clean. Use a cloth dipped in a warm water and vinegar solution to clean the bowl and the seat. Finish off by sprinkling a few drops of disinfecting eucalyptus or tea tree oil onto a damp cloth and wiping the rim and seat.

Windows and mirrors: Add 1 cup of vinegar to a bucket of hot water and sponge clean. Polish dry with a soft cloth or newspaper. For smaller areas moisten newspaper with vinegar and polish clean. Alternatively use 2 micro fibre cloths; a damp one to clean and a dry one to polish and leave streak and spot free.

For More Information on Chemical Free Products and Tips:

Economically Sound: http://www.economicallysound.com/chemicalfree_cleaning.html

Earth Easy: http://www.eartheasy.com/live_nontoxic_solutions.htm

Organic Formulations: www.organicformulations.com/info-r&m.html

Organized Home: <http://organizedhome.com/pantry-recipes-homemade-cleaning-products>

The New Homemaker: www.thenewhomemaker.com/cleanandorganized



5 NEED FURTHER INFORMATION?

This Zero Hazardous Waste Guide, which is Part One of the Zero Hazardous Waste Toolkit, has been developed by the Council to assist you identify how best to reduce your use of hazardous materials and to appropriately manage the hazardous waste that you produce to avoid harm to your health and the environment.

Part Two of the Zero Hazardous Waste Toolkit is the Zero Hazardous Waste Directory of Contacts, which provides you with the contact details of a range of service providers for specific hazardous waste materials and other helpful information you may require.

If you need further information about Hazardous Waste please contact:

Queenstown Lakes District Council
Customer Services Team
Queenstown 03 441 0499
Wanaka 03 443 0024
Website: <http://www.qldc.govt.nz>

Useful Web Links Relating to Hazardous Waste include:

Local

QLDC Waste Minimisation www.qldc.govt.nz (go to key services)
QLDC Waste Management Strategy www.qldc.govt.nz (go to key services)
Wanaka Wastebusters www.wanakawastebusters.co.nz
QLDC Waste Exchange www.recirculate.org.nz

National

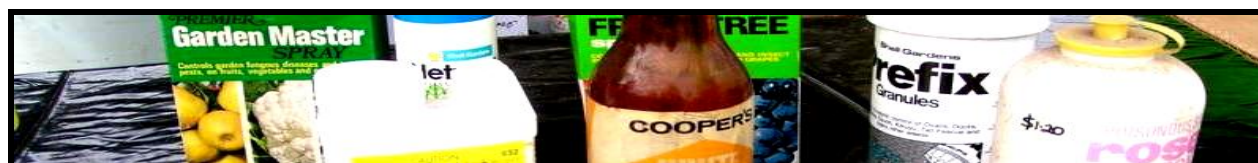
Ministry for the Environment Waste Pages www.mfe.govt.nz/issues/waste
Sustainability Hazardous Waste Pages www.sustainability.govt.nz/rubbish
WasteMinz www.wasteminz.org.nz
ZeroWaste www.zerowaste.co.nz
Recycling Operators of New Zealand www.ronz.org.nz

Hazardous Waste Specific

InterWaste (battery and fluoro tube recycling) www.interwaste.co.nz
HazMobile www.hazmobile.govt.nz
Enviropaints www.enviropaints.co.nz
CMA EcoCycle (recycling fluoro tubes) www.cmaecocycle.net
eDay (e-waste collection) www.eday.org.nz
Toxinz (first aid for chemical poisoning) www.toxinz.com
TRC Toner Recycling www.trconline.co.nz

International Sites

The Ecologist www.theecologist.co.nz



APPENDIX A: DEFINITIONS: HAZARDOUS CHARACTERISTICS

CHARACTERISTIC DEFINITION

Explosiveness	An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which in itself IS capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.
Flammability	<p>Flammable liquids:</p> <p>Flammable liquids are liquids,, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc., but no including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapor at temperatures of not more than 60.5 deg. C, closed-cup test, or not more than 65.6 deg C, open-cup test.</p> <p>Flammable solids:</p> <p>Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.</p> <p>Substances or wastes liable to spontaneous combustion. Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and being liable to catch fire.</p> <p>Substances or wastes which, in contact with water emit flammable gases. Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.</p>
Capacity to oxidise	Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen cause, or contribute to, the combustion of other materials.
Toxicity	Substances or wastes which, if they are inhaled or ingested or if they penetrate the skin, may involve delayed or chronic effects, including carcinogenicity.
Corrosiveness	Substances or wastes which, by chemical action, will cause severe damage when in contact with living tissue, or in the case of leakage, will materially damage, or even destroy, other goods or the means of transport; they may also cause other hazards.
Eco-toxicity	Substances or wastes which if released present or may present immediate or delayed adverse impacts to the environment by means of bioaccumulation and/or toxic effects upon biotic systems.
Infectiousness	Infectious Substances: Substances or wastes containing viable micro organisms or their toxins which are known or suspected to cause disease in animals or humans.
Radioactivity	The Radiation Protection Act 1965: Radioactive material means any article containing a radioactive substance giving it a specific radioactivity exceeding 100 kilobecquerels per kilogram and a total radioactivity exceeding 3 kilobecquerels. Radioactive substance means a radionuclide or mixture of radionuclides, either alone or in a chemical combination with other elements.