

Waste & Recycling

Part 3i – Material Fact Sheets

Hazardous Waste

What is Hazardous Waste?

It is waste which is dangerous or potentially harmful to our health or the environment.

Hazardous waste can be in a liquid, solid or even gas form. Engine oil, gas bottles, car batteries, paint, fire extinguishers, toners from copiers or laser printers and fluorescent lighting tubes are all examples of hazardous waste, which can be recycled via Council's transfer stations.

What Happens to Hazardous Waste?

Unwanted water-based paint

is often accepted for recycling via the transfer stations. All brands and colours of water based paint could be treated and remixed into new colours for resale or gift to community groups, e.g. for graffiti cover-up.

In addition to recycling the paint, the metal tins are recycled and the plastic containers washed, dried and placed through a process into recycling grades for granulating and making into new containers.

Trade painters can return part-used paint tins to some suppliers, e.g. Dulux http://www.dulux.co.nz/media/1607458/j001290%20dulux_take%20back%20flyer_a5_website.pdf and Resene <http://www.resene.co.nz>

Gas bottles

are accepted at all transfer sites, the tops removed (by qualified staff using specialist equipment) and the bottles ventilated prior to sending for recycling with the scrap metal.

Fluorescent lighting tubes and compact light bulbs

can often be recycled at transfer stations, providing they are not broken or damaged. The tubes contain a little mercury, toxic to humans, which can pollute waterways and cause environmental damage.

To recycle the tubes, they are crushed in a sealed container so that the elements are separated. All products are distilled and recycled into the following:

1. Aluminium tube ends are recycled into cast ingots at a foundry.
2. Lamp glass is separated and recycled into glass wool for insulation.
3. Phosphor powder is used to manufacture fertiliser products and sold to the New Zealand and Australian agricultural sector.

4. Mercury is separated.

Printer and copier toners

can be recycled via the transfer stations, from the cartridges, preferably in their boxes. There are several stages to toner recycling:

- a) Toner cartridges are received at the processing centre, emptied from cardboard boxes, (which are sent for recycling) and sorted according to plastic type, prior to dismantling and cleaning.
- b) Plastic waste is sold for recycling into various products, including coat hangers and planter boxes, whilst the steel and aluminium parts are separated for recycling.
- c) Leftover waste toner is remade into commercial paint by a New Zealand company.

Engine Oil

It is important to recycle oil correctly, as even a small amount can damage the environment and make a noticeable mess. Remember never tip oil down the drain.

Engine oil can be recycled via Council transfer stations and is held in special containers, to prevent spills or leaks.

Only engine oil is placed in these containers, not cooking oil, thinners, white spirit, paint or other chemicals.

Once collected, the oil is processed and reused as an alternative boiler fuel source.

Car Batteries

Car batteries are recyclable for no charge via all transfer stations, but do take care when handling car batteries, as the acid they contain can leak; so wear suitable gloves at all times.

Car batteries from the transfer stations are sent to a scrap metal merchant for lead recycling.

What about Reduction and Re-Use?

Paint – if a school, community group or individual needs paint and they are flexible about the choice of colours, then second hand water-based paint is a possibility. As two examples: It can be taken from the transfer station paint bins in Hurunui District at no charge, and in Timaru be purchased inexpensively at the Crow's Nest re-use shop; great examples of turning waste into a useful resource. Check what is available locally and see *Class Challenges* below.

What to Remember when Recycling Hazardous Waste

- Before bringing hazardous waste to the Council's transfer station, ensure it is safely contained for the journey. Screw on lids and carry items within a box or tray.

- Phone the Council (or consult its website) to check that the transfer station you will use is able to accept any type of hazardous waste you wish to recycle.
- Keep all hazardous waste out of the kerbside collection and out of landfill.

Class Challenges

1. Set up a toner recycling scheme at school; these can be recycled via the transfer stations or by contacting Croxley Recycling to collect them. Posters can be designed to promote toner recycling through letting other students and teachers know what happens to them. Ensure the health and safety system covers toner exposure risk.
2. Paint a mural at school, or renovate furniture, to promote recycling and re-use? Paint may be donated by manufacturers, such as *Resene*:
<https://www.resene.co.nz/comn/services/sponsorship.htm> and
https://www.resene.co.nz/comn/envissue/paintwise_register.htm .

Dulux also take back part-used cans <http://www.painttakeback.co.nz/> and gift to help schools and community groups.

This is a great example of re-use and will save the school money too. Perhaps re-designed and brightened up donated or surplus furniture could be sold as a fundraiser - a great class project.

Further Resources

For information on hazardous waste recycling including suggestions to minimise the use of hazardous material visit the following websites:

<https://www.aucklandcouncil.govt.nz/rubbish-recycling/Pages/hazardous-waste.aspx>

<https://wellington.govt.nz/services/environment-and-waste/hazardous-substances>

<http://www.environmentguide.org.nz/activities/hazardous-waste-and-contaminated-land/hazardous-waste/>

<https://www.youtube.com/watch?v=JpLS-OT3bN4> (Video on purchasing, use and storing of hazardous materials) followed by <https://www.youtube.com/watch?v=VRKjW6r1EFI> on safe disposal (USA example, but clear principles illustrated)