



Disposal of agvet chemicals

Following collection, all retrieved agvet chemicals are safely transported to ChemClear's contractor depot in Melbourne for sorting into batches for appropriate treatment and disposal.

Treatment of Group 1 chemicals

General and organophosphorus pesticides are blended with various solvents and used in an energy recovery process in the cement manufacturing industry. This process utilises the calorific value of the mix as a fuel source to produce energy for cement kilns.

Treatment of Group 2 chemicals

Destruction of organochlorine-based pesticides involves injecting the chemical into a plasma torch that burns at a temperature of 3500 degrees celsius, similar to the temperature of the sun.

This reduces the chemical to its "building blocks" and it is treated to form salty water and carbon dioxide. Arsenic-based pesticides are, in some cases, oxidised followed by a fixation technique under alkaline conditions.

The stabilised waste is placed under a Toxicity Characteristic Leaching Procedure (TCLP), which is a test simulating any potentially toxic material that could leak out of solid material.

The test simulates what would happen if the waste was stabilised and landfilled and what would happen if rainwater passed through the stabilised waste.

Test results must indicate the arsenic limits are below landfill specifications.

Alternatively, arsenics in solvent solutions may be used as kiln fuels.

Disposal facts

98% of chemicals collected by ChemClear are used as an alternative fuel source.

The remaining 2%, which are Schedule X organochlorines, arsenics and cyanides, are treated as follows: Schedule X organochlorines are destroyed by Plasma Arc technology at the Toxfree PLASCON plant, which operates 24 hours each day.

The PLASCON destroys waste at the rate of 40-45kg per hour, returning a destruction efficiency of 99.99%.

Some arsenic solutions in organic solvents may be used as kiln fuels in low percentages.

Stabilisation followed by secure landfill is adopted as a disposal route under the guidance of environmental protection authorities in each state and territory.

Cyanides are treated to produce harmless salts and other inorganic materials to render them safe for disposal through industrial waste water treatment plants.

Recycling

All chemical containers decanted under the ChemClear program are recycled and used in the manufacture of wheelie bins, construction materials, fence posts and piping.

All eligible **drumMUSTER** containers are recorded under that program.



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