



# Hexachlorobenzene (HCB) Waste

## Fact Sheet

### HCB

HCB (hexachlorobenzene) is a crystalline solid waste by-product. Internationally, it is known and classified as a priority Persistent Organic Pollutant (POP). The physical composition of HCB waste makes it particularly challenging to destroy.

HCB has relatively low acute toxicity but presents a danger of serious damage to health by prolonged exposure. HCB may accumulate in an organism (especially with prolonged or frequent exposure), does not easily break down in the environment and is a suspected human carcinogen. HCB is a hazard to human health if it is ingested, or possibly from direct contact with damaged skin. Contact should be avoided.

### HCB at the Botany Industrial Park (BIP)

HCB was produced as a waste by-product primarily in the former solvent manufacturing plants at BIP between 1963 and 1991. No HCB has been produced at BIP since the closure of the Solvents Plant in 1991. The HCB waste and related materials are safely stored in purpose-built storage facilities and UN approved shipping containers at BIP. This includes both concentrated waste and low-level waste such as contaminated used packaging materials.

### Current Waste Storage & Management

The HCB waste at BIP is safely stored in a mixture of approved transport containers including:

- new steel drums lined with plastic;
- one tonne capacity plastic bulky boxes;
- one cubic metre wooden crates; and
- plastic bulk bags.

The HCB waste containers can deteriorate over time and thus require replacement. The rate of deterioration depends on the properties of the waste. Regular inspections are conducted to ensure the packaging is sound and further repackaging is undertaken when required.

Ongoing implementation of Orica's Safety Health & Environment Management System ensures that HCB waste is managed in a safe and secure manner for the protection of workers, the community and the environment. Measures include training, response planning, inspections, maintenance programs and capital works.

The HCB waste stored at Botany is not flammable or volatile and does not present an unacceptable health risk to BIP workers or the community. It is stored in locked sheds and is checked regularly.

### Used Packaging

When waste is repackaged, the old packaging (which can be contaminated with HCB) then becomes part of the waste inventory. For example, if a drum needs to be replaced, the HCB is transferred to a new container, and the old drum is crushed and packaged as contaminated waste.

All of the stored HCB waste was repackaged in new packaging in a purpose-built repackaging plant between mid-2007 and 2011. The repackaging plant was designed to repackage all the waste within a relatively short time period, and improved occupational hygiene for workers handling the waste, reduced manual handling and included an emission control system to manage air quality within and emissions from the plant.

HCB Waste repackaging is undertaken periodically as required.

In order to reduce the waste inventory, Orica recycles clean used drums and pallets off-site where possible.

### Waste Packaging

## Hexachlorobenzene (HCB) Waste



Steel drums lined internally with plastic



Drums in a shipping container

### Regulation

HCB waste is safely stored in secure packaging at BIP in licensed storage facilities. Operation of the HCB repackaging plant is regulated by the EPA under Environment Protection Licence 2148.

### Security

The HCB waste stores are regulated, and inspected, by NSW EPA. Security measures form part of the controls for the safe storage and management of HCB waste at BIP.

### Environmentally Sound Destruction Options

Orica has been committed to finding a solution for the destruction of the HCB Waste for many years.

There are no facilities to treat the HCB waste in Australia. The only commercially developed and proven technology for the destruction of Orica's HCB waste is High Temperature Incineration ("HTI").

Orica has conducted a comprehensive review of options and concluded that this proven solution is the best option to destroy the HCB waste in an environmentally sound manner.

Movement of the waste to Europe requires the Approval of both the Australian Federal government and the European government to which the waste is been shipped.

To read more about the application visit [www.orica.com/HCB](http://www.orica.com/HCB)

### Orica's Commitment to Remediation of Legacy Issues

Orica has demonstrated its commitment to the remediation of legacy issues at the Botany Industrial Park with the successful destruction of over 90,000 tonne of low level HCB contaminated soils for the Car Park Waste Encapsulation Remediation Project, the ongoing successful containment and treatment of contaminated groundwater at the Groundwater Treatment Plant, and the remediation of mercury contaminated soil at the site of the Former ChlorAlkali Plant.

### For more information

- [www.orica.com/HCB](http://www.orica.com/HCB)
- Or contact Orica:
  - by email to [botany.info@orica.com](mailto:botany.info@orica.com)
  - by phoning Botany Industrial Park Community Hotline for complaints enquiries and feedback - 1800 025 138
  - by writing in to - Community Matters, 16-20 Beauchamp Road, Matraville 2036