

Contaminant Fact Sheet

What should I do if my cannabis contains harmful contaminants?

Our previous research indicates it is unlikely harmful contaminants will be present in cannabis. If there are contaminants present in your cannabis, be aware that poison from cannabis is extremely rare.

Cannabis can be contaminated by heavy metals, mycotoxins, or pesticide residues. Some bacteria and fungi are part of the plant's natural biome whereas some contaminants are harmful to human health. Contaminants of concern are described below.

If you feel concerned about the presence of contaminants, you might want to discuss your sample analysis results with the New South Wales Poisons Information Centre. You can then make an informed decision around continuing to use the cannabis plant from which you provided the sample.

- New South Wales Poisons Information Centre (Telephone: 13 11 26; <https://www.poisonsinfo.nsw.gov.au/>).

If you feel distressed about your sample analysis results, please contact one of the following free 24-hour support services:

- Lifeline (Telephone: 13 11 13; website: <https://www.lifeline.org.au/>)
- Beyond Blue (Telephone 1300 22 4636; <https://www.beyondblue.org.au/>)

What is the difference between 'limit of reporting' and 'TGO 93 limit'?

The 'limit of reporting' is the smallest amount that ChemCentre is able to reliably detect with their analysis. The 'TGO 93 limit' is the maximum amount that the TGA deems acceptable in medicinal cannabis products. The 'limit of reporting' is often smaller than the 'TGO 93 limit'. This is why you may see presence of contaminants in your results, even though they fall under the 'TGO 93 limit'.

An example of this is the presence of the heavy metal lead, which we found in most of the samples submitted to us. However, while there were detectable levels, all samples fell under the TGO 93 guidelines for lead.

What are heavy metals?

The cannabis plant can accumulate **heavy metals**, which are metallic elements readily found in soil. Soil pollution with heavy metals is a widespread problem. Interestingly, cannabis is especially efficient at heavy metal uptake from soil, so much so that industrial hemp has been considered a candidate for phytoremediation of contaminated soil sites. Common heavy metals include mercury, cadmium, lead, and arsenic. Heavy metals accumulation in cannabis is dangerous to human health and can cause disease. If your cannabis contains heavy metals, please speak to New South Wales Poisons Information Centre before continuing use.

What are mycotoxins?

Mould can infect cannabis flowers and produce **mycotoxins**, which are common plant and food contaminants. Not all moulds will produce mycotoxins. Mycotoxins found in cannabis include aflatoxins and ochratoxins. Mycotoxins are a known risk in the food safety industry, and have been associated with kidney and liver damage, reproductive disorders, and immune suppression.

Aflatoxins are particularly harmful to human health as they can be carcinogenic. If your cannabis contains mycotoxins, please speak to New South Wales Poisons Information Centre before continuing use.

What are pesticides?

Pesticides are chemicals that kill insects and other pests. Pesticides can infect cannabis plants and pose risks to users. Pesticides can be toxic at high levels and create health complications when cannabis is smoked or inhaled. Many pesticides found in cannabis have been deemed moderately hazardous by the World Health Organization. If your cannabis contains pesticides, please speak to New South Wales Poisons Information Centre before continuing use.