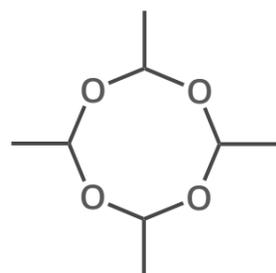


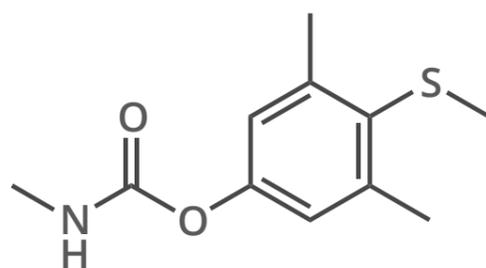
# THE CHEMISTRY OF SLUG PELLETS

Slugs and snails are common garden pests, and gardeners often turn to slug pellets in order to fend them off. But what exactly are those blue pellets made of?

## ACTIVE COMPOUNDS



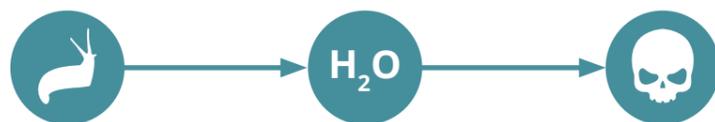
METALDEHYDE



METHIOCARB

Metaldehyde is a compound that was originally used in solid fuel tablets; its slug-killing ability was discovered by accident. It is used exclusively as a pesticide against gastropods, and is the most common compound used in slug pellets.

### ACTION OF METALDEHYDE



Metaldehyde exerts its effects either through the skin or when eaten, and causes excess production of mucus, leading to dehydration, damage to mucus cells, and eventual death.

4-6% of the pellets are the active ingredient - the rest is bait, along with a colourant. High levels of metaldehyde repel slugs, so piling it high can actually reduce its effectiveness.

Methiocarb is a more toxic alternative to metaldehyde, but was banned by the EU in September 2014, as it is also toxic to birds.



## HARMFUL EFFECTS



Metaldehyde is not just toxic to slugs and snails - it's also toxic to mammals, and pets are often made ill by eating pellets. It's toxic to humans too, causing unpleasant symptoms if consumed. Low concentrations have been found in drinking water, but below the level that would cause harm. Its residues are not permitted in crops for human consumption in the US.

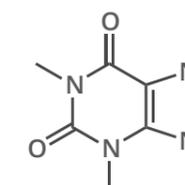
## ALTERNATIVES



ALUMINIUM  
SULFATE



IRON  
PHOSPHATE



CAFFEINE

Alternatives used include aluminium sulfate, which is only effective against small slugs, and iron phosphate. Naturally occurring roundworms, nematodes, can also be used. Oddly enough, caffeine is also surprisingly effective at killing slugs and snails in a 1-2% solution.



© COMPOUND INTEREST 2015 - WWW.COMPOUNDCHEM.COM | Twitter: @compoundchem | Facebook: www.facebook.com/compoundchem

This graphic is shared under a Creative Commons Attribution-NonCommercial-NoDerivatives licence.

Slug pellets image by Christian Schnettelker (www.manoftaste.de), shared under a Creative Commons Attribution licence.

