

Aldicarb, Aldicarb Sulfone, and Aldicarb Sulfoxide

What are Aldicarb, Aldicarb Sulfone, and Aldicarb Sulfoxide?

Aldicarb (formerly marketed under the trade names Temik® and SmartBox®) is a pesticide used to control nematodes, insects and mites on potato, citrus, cotton, soy, peanut, and tobacco crops. Aldicarb is highly soluble in water, highly mobile in soil (especially soil with low organic content) and can persist in the environment for anywhere from a few days to a several years. Aldicarb is oxidized by microorganisms in soil and broken down to form aldicarb sulfone and aldicarb sulfoxide. These compounds are known as degradation compounds of aldicarb.

Does Aldicarb and it's degradation compounds have any additional names?

2-methyl-2(methylthio)propionaldehyde, Omethylcarbamoyloxime, Aldicarb Sulfone, and Aldicarb Sulfoxide

What are the known health effects?

Aldicarb and it's degradation compounds can affect you when breathed in and by passing through your skin. Exposure to Aldicarb can cause rapid, severe Carbamate poisoning with headache, sweating, nausea and vomiting, diarrhea, and loss of coordination.

How does exposure occur?

The primary route of human exposure to Aldicarb and it's degradation compounds is consumption of contaminated food and of water from contaminated wells. Occupational exposure to high levels of aldicarb is due to product handling and most cases of Aldicarb and it's degradation compounds poisoning occur from loading and application of the pesticide.

Is this contaminant regulated?

Yes, these contaminants are regulated but do not have an MCL. The regulations require us to monitor and report our results. We have not detected these compounds in our drinking water.

How can I reduce exposure?

Aldicarb and it's degradation compounds in drinking water can be removed by point of use granulated activated carbon filtration.

Additional information regarding Aldicarb and it's degradation compounds, including the information referenced, can be found at:

<https://www.nj.gov/health/eoh/rtkweb/documents/fs/0031.pdf>

https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0003_summary.pdf