

Management of Pesticide Waste in South Africa

What is a pesticide?

Pesticides are used throughout the world in many spheres and sectors such as the government institutions, domestic households, the industrial sector, agricultural and forestry in an effort to control pests i.e. yield stock (food supply) and to control public health hazards and nuisance pests. Pesticides are any substance used to kill, repel, or control certain forms of plant or animal life that are considered to be pests.

What are the different types of pesticides available?

- Herbicides for destroying weeds and other unwanted vegetation;
- Insecticides for controlling a wide variety of insects;
- Fungicides used to prevent the growth of moulds and mildew;
- Disinfectants for preventing the spread of bacteria, and compounds used to control mice and rats.
- Rodenticides - rodents (rats and mice)
- Bactericides - bacteria
- Fungicides - fungi
- Larvicides – larvae



Insecticide

What is pesticides waste?

This is any material/items/substances/solutions containing pesticide contents that are no longer in use i.e. have expired and includes all the empty containers whether discarded or are in use. Pesticide wastes include, but are not limited to: surplus spray solution; ultra-low volume (ULV) spray concentrate, dusts, granules, or baits remaining in or removed from the application equipment (such as tanks, hoppers, booms, hoses) after use. Pesticide waste also include empty contaminated pesticide containers, materials generated from cleaning up spilled spray solution, pesticide-contaminated water produced by cleaning the interior surfaces of the pesticide application equipment or from rinsing empty pesticide containers and pesticide-contaminated absorbents.

Obsolescent pesticides are said to include all banned/expired pesticide products that are no longer in use and include all the containers whether stored or improperly discarded. The Food and Agriculture Organization (FAO) of the United Nations defines obsolete pesticides as all pesticides products not in current use because they have been banned, have deteriorated or are damaged, have passed their expiration date, cannot be used for any other reason or are not wanted by the current owner.

Applicable legislation on the management of pesticide:

The legislation includes but is not limited to the:

- Constitution of the Republic of South Africa, Act No. 108 of 1996.
- National Environmental Management Act (Act 107 of 1998) (NEMA)
- National Environmental Management: Waste Act (Act 59 of 2008) (NEM: WA)
- National Norms and Standards for the Storage of Waste (Government Notice 926 of 2013)
- Waste Classification and Management Regulations (GN No. R. 634 of 23 August 2013) (WC&MR)
- Norms and Standards for Assessment of Waste for Landfill Disposal (GN No. R. 635 of 23 August 2013)
- Norms and Standards for Disposal of Waste to Landfill (GN No. R. 636 of 23 August 2013)

- National Waste Information Regulations (NG No. R625 of 13 August 2012)

Management of pesticide waste, a challenge.

The management of pesticide waste is a challenge due to factors such as lack of education or guidance in the proper management of small quantities of pesticide-related waste, discarding of empty pesticide waste containers near poor communities and the re-use of contaminated empty containers for domestic purposes. Some obsolete pesticides stocks are located and stored in open land in rural village pits where they are accessible to children, livestock, open rain and the community at large.

Current pesticide waste management in the country

There is currently no readily or recent available data on the actual amount of pesticide waste generated in South Africa. The recent data referenced is from the National Waste Information Baseline Report which was undertaken in the year 2012 which looked at the tonnages of waste recycled, treated, landfilled and exported. The Baseline Report mentions that data on pesticide waste is limited, however South Africa generated 1,319,096 tonnes of hazardous waste in 2011 and of those POPs waste, where one can regard pesticide waste to be included, accounted for 486 tonnes generated, 80 tonnes treated and 406 landfilled. There was no data reflected on the volume of POPs recycled.

Pesticides waste generators:

Pesticides waste generators should note that:

- The National norms and standards for disposal of waste to landfill has certain restrictions that have come into effect, on the 23rd of August 2017 hazardous waste (organic compounds) containing a calorific value of greater than 20 and 25 MJ/kg are banned and restricted from being landfilled.
- Residue pesticides and pesticides containers are restricted and banned from landfilling this came into effect in the year 2017.
- PCB containing waste of more than 50mg/kg or 50ppm are restricted and banned from landfilling this came into effect in the year 2018
- In the year 2021 POPs pesticides listed under the Stockholm convention will be banned and restricted from being landfilled.
- Such pesticide waste must be treated prior to disposal. Details of the appropriately licensed treatment processes may be obtained from <http://sawic.environment.gov.za>.
- AVCASA has a List of approved container recyclers and collectors; Guidelines for the responsible disposal of empty plastic pesticide containers; Guidelines for the disposal of obsolete pesticides; and the Requirements for collectors & recyclers of empty plastic pesticide containers. These can be obtained from <http://www.avcasa.co.za/index.php?layout=edit&id=10>

FOR MORE INFORMATION CONTACT:

Mr Kagiso Mokone | **Branch:** Chemicals and Waste Management
 | **Directorate:** Hazardous Waste Management | **Tel:** +27 12 399 9680 | **Cell:** 076 061 5139 | **Email:** Kmokone@environment.gov.za

www.environment.gov.za

Call Centre 086 111 2468



Find us:
Department-of-
Environmental-Affairs



Follow us:
@EnvironmentZA



Follow us:
@EnvironmentZA



EnvironmentZA