

## **Local Law 37 of 2005**

### **Changes to Pesticides Listed as Carcinogens or Developmental Toxicants since April 1, 2005**

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## **BACKGROUND**

In May 2005, Local Law 37 ((LL37) introduced by the New York City Council as Intro 329) was signed into law. LL37 set forth a number of requirements related to the use of pesticides on New York City property with the overall goal of reducing the City's use of hazardous pesticides. LL37 prohibited the use on city property of pesticides meeting any of three criteria:

- 1) Classified as Toxicity Category 1 by the United States Environmental Protection Agency (EPA);
- 2) Classified as a known, likely, probable or possible human carcinogens by the Office of Pesticide Programs of the EPA as of April 1, 2005;
- 3) Classified as developmental toxicants by California Office of Environmental Health Hazard Assessment (COEHHS) as of April 1, 2005.

In LL37, the latter two criteria are based on pesticide classification lists identifying carcinogens or developmental toxicants as constituted at the time the law went into effect (April 1, 2005). No chemical can be prohibited or removed from prohibition based on subsequent changes to these two lists without amending the NYC Administrative Code to update the effective dates of the reference lists. Under LL37 the Department of Health and Mental Hygiene must report annually to New York City Council on changes made to the referenced carcinogen and developmental toxicants lists since the NYC LL37 prohibition list was first established on April 1, 2005. The Department of Health and Mental Hygiene must also report on use by city agencies of products added to either list. Below, we detail the list changes as of February 2018 and city agency usage in 2016, the most recent year for which complete data is available.

## **CHANGES TO THE U.S. EPA LIST OF CARCINOGENIC PESTICIDES**

**Table 1** below lists chemicals that were determined to have carcinogenic properties by the EPA Office of Pesticide Programs since April 1, 2005 and the quantities of pesticide products containing each of those chemicals used by city agencies in 2016. In 2017, Tetrachlorvinphos, used for fleas and ticks on pets; Nitrapyrin, a nitrogen fixative for soil; Tioxazafen, a nematocide treatment for seeds; and Tolpyralate, a new herbicide, and Fenpicoxamid, a new fungicide, both with no currently registered products, were all added to the list of carcinogenic chemicals. Three chemicals, Penoxsulam, Flonicamid, and Metaldehyde, were used by agencies in 2016. Penoxsulam use had not been reported in years prior to 2016.

**Table 2** lists the chemicals that were removed from the EPA carcinogen list since April 1, 2005 because they are no longer classified as having carcinogenic properties by the EPA Office of Pesticides. Pyrethrins, the botanical extracts of the chrysanthemum flower, are a very common active ingredient in various insecticide formulations and were removed from the list in 2008. Many other products containing these ingredients have been out of use in recent years.

**Table 1: Chemicals added to U.S. EPA list of carcinogenic pesticides**

<b>Chemical name</b>	<b>EPA cancer classification</b>	<b>Report Date</b>	<b>Number of EPA-registered products containing chemical</b>	<b>Total quantity used by NYC agencies in 2016</b>
Penoxsulam	Suggestive Evidence of Carcinogenicity, but Not Sufficient to Assess Human Carcinogenic Potential	3/24/2004	57	320 pounds
Tetrachlorvinphos (Gardona)	Group C--Possible Human Carcinogen	12/21/2016	43	None
Metaldehyde	Suggestive Evidence of Carcinogenic Potential	6/23/2005	24	0.5 pounds
Sedaxane	Likely To Be Carcinogenic To Humans	5/18/2011	19	None
S-Dimethenamid	Group C--Possible Human Carcinogen	8/27/2008	13	None
Penflufen	Suggestive Evidence of Carcinogenic Potential	3/30/2011	10	None
Flonicamid	Likely to be Carcinogenic to Humans	2/24/2005	8	1.0 pounds
Nitrapyrin	Suggestive Evidence Of Carcinogenic Potential	9/22/2016	8	None
Penthiopyrad	Suggestive Evidence of Carcinogenic Potential	10/18/2011	8	None
Pyrasulfotole	Likely to be Carcinogenic to Humans	5/17/2007	6	None
Ethaboxam	Suggestive Evidence of Carcinogenic Potential	3/23/2006	5	None
Fluensulfone	Suggestive Evidence Of Carcinogenic Potential	5/7/2014	5	None
Orthosulfamuron	Suggestive Evidence Of Carcinogenic Potential	10/26/2006	5	None
Dichloran	Suggestive Evidence Of Carcinogenic Potential	5/11/2006	4	None
Tembotrione	Suggestive Evidence of Carcinogenic Potential	5/22/2007	4	None
Cyflumetofen	Suggestive Evidence Of Carcinogenic Potential	12/30/2013	3	None
Spirodiclofen	Likely to be Carcinogenic to Humans	6/10/2004	2	None
Metrafenone	Suggestive Evidence of Carcinogenic Potential	7/6/2006	2	None
Furfural	Likely To Be Carcinogenic To Humans	2/6/2014	2	None
Tioxazafen	Likely to Be Carcinogenic to Humans	9/20/2016	2	None
Sodium-bichromate dihydrate	Likely To Be Carcinogenic To Humans	7/1/2009	1	None

Chemical name	EPA cancer classification	Report Date	Number of EPA-registered products containing chemical	Total quantity used by NYC agencies in 2016
Resmethrin	Likely to be Carcinogenic to Humans	5/25/2005	0	None
Thiacloprid	Likely to be Carcinogenic to Humans	10/31/2012	0	None
Pirimicarb	Suggestive Evidence of Carcinogenicity, but not sufficient to assess human carcinogenic potential	7/13/2005	0	None
Dithianon	Suggestive Evidence of Carcinogenic Potential	2/23/2006	0	None
Benthiavalicarb-isopropyl	Likely to be Carcinogenic to Humans	10/18/2005	0	None
Cumyluron	Suggestive Evidence of Carcinogenic Potential	6/11/2008	0	None
Mepanipyrim	Likely to be Carcinogenic to Humans	4/20/2004	0	None
Fenpropidin	Suggestive Evidence of Carcinogenic Potential	6/9/2009	0	None
Sodium dichromate	Likely to be Carcinogenic to Humans	7/1/2009	0	None
Hexavalent Chromium (CrVI)	Likely to be Carcinogenic to Humans	7/1/2009	0	None
Cyflufenamid	Likely to be Carcinogenic to Humans	6/22/2010	0	None
Ethiprole	Suggestive Evidence of Carcinogenic Potential	10/28/2010	0	None
Isopyrazam	Likely To Be Carcinogenic To Humans	2/2/2011	0	None
Pyrazachlor	Likely To Be Carcinogenic To Humans	9/20/2011	0	None
Tolpyralate	Suggestive Evidence Of Carcinogenic Potential.	1/18/2017	0	None
Fenpicoxamid (XDE-777)	Suggestive Evidence Of Carcinogenic Potential	8/24/2017	0	None

(Sources: *Chemicals Evaluated for Carcinogenic Potential*, Office of Pesticide Programs, U.S. EPA, 2017; EPA Pesticide Product Information System; NYC LL37 Agency Reporting Data)

**Table 2: Chemicals removed from the U.S. EPA list of carcinogenic pesticides**

Chemical name	EPA cancer classification	Report Date	Number of EPA-registered products that contain this chemical
Pyrethrins	Not Likely To Be Carcinogenic To Humans at doses that do not cause mitogenic response in the liver cell proliferation	2/14/2008	558
Thiamethoxam	Not Likely To Be Carcinogenic To Humans at doses that do not cause a mitogenic response in the liver	6/13/2005	83
Ortho-phenylphenol	Multiple Descriptors: Not Likely To Be Carcinogenic To Humans At Doses That Do Not Alter Rat Thyroid Hormone Homeostasis	10/12/2005	72
Ethofenprox	Not Likely To Be Carcinogenic To Humans	2/8/2006	60
Fomesafen	Not Likely To Be Carcinogenic To Humans	11/3/2005	51

Chemical name	EPA cancer classification	Report Date	Number of EPA-registered products that contain this chemical
Simazine	Not Likely to be Carcinogenic to Humans	4/14/2005	24
Para-dichlorobenzene	Not Likely To Be Carcinogenic To Humans	6/5/2007	20
Ortho-phenylphenol, sodium salt	Not Likely To Be Carcinogenic To Humans	10/12/2005	16
Folpet	Not likely to be carcinogenic to humans at doses that do not cause an irritation response in the mucosal epithelium	10/13/2010	11
Cyproconazole	Not Likely To Be Carcinogenic To Humans	12/4/2007	7
Sulfosulfuron	Not Likely to be Carcinogenic to Humans	12/16/2008	5
Acrolein	Not Likely To Be Carcinogenic To Humans	3/25/2008	4
Propazine	Not Likely To Be Carcinogenic To Humans	12/8/2005	2
Methyl isothiocyanate	There are insufficient data to characterize the cancer risk of MITC	4/30/2009	0

(Sources: *Chemicals Evaluated for Carcinogenic Potential*, Office of Pesticide Programs, U.S. EPA, 2017; EPA Pesticide Product Information System; NYC LL37 Agency Reporting Data)

## CHANGES TO THE CALIFORNIA DEVELOPMENTAL TOXICANT LIST

Eight pesticides have been added to the developmental toxicants list from the California Office of Environmental Health Hazard Assessment since April 1, 2005. Two of those chemicals were already classified by EPA as carcinogens and thus are already prohibited under LL37. Those chemicals are Carbaryl and Molinate. In 2017 the organophosphate insecticide Chlorpyrifos was added due to developmental toxicity. City agencies used 41.4 gallons in 2016 exclusively on golf courses, which are exempt from prohibitions under LL37. Only five other chemicals have been added as developmental toxicants since 2005: Nitrobenzene and Avermectin in 2010 and the three triazine herbicides, mainly used in agriculture, in 2016. Nitrobenzene is not contained in any currently registered products, and Avermectin is a component of numerous containerized insecticide baits but is exempt from prohibition under LL37 in containerized form. This chemical was used by agencies prior to being placed on this list and its continued use in containerized baits is allowed under the exemption provisions of Local Law 37. From 2015 to 2016 its use decreased by 13%. Table 3 below summarizes the number of registered products and quantities of pesticide products containing each chemical used by city agencies in 2016.

**Table 3: Chemicals added to California Office of Environmental Health Hazard Assessment Developmental or Reproductive Toxicants List**

Chemical name	California Proposition 65 toxicity classification	Date Listed	Number of EPA-registered products that contain this chemical	Total quantity used by NYC agencies in 2016
Atrazine	Female reproductive toxicant	7/15/2016	161	None
Avermectin	Developmental toxicant	12/3/2010	114	2.7 gallons/ 113.8 pounds
Chlorpyrifos	Developmental toxicant	12/15/2017	84	41.4 gallons
Simazine	Female reproductive toxicant	7/15/2016	24	None
Propazine	Female reproductive toxicant	7/15/2016	2	None
Nitrobenzene	Male reproductive toxicant	3/30/2010	0	None

(Sources: *Chemicals Known to the State to Cause Cancer or Reproductive Toxicity*, Office of Environmental Health Hazard Assessment, California EPA, December 29, 2017; EPA Pesticide Product Information System; NYC LL37 Agency Reporting Data)