

Local Law 37 of 2005

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

Prepared by the NYC Department of Health and Mental Hygiene,
Bureau of Environmental Surveillance and Policy

June 2021

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 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 carcinogen 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 were originally based on pesticide classification lists identifying carcinogens or developmental toxicants at the time the law went into effect (April 1, 2005). No chemical could 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. An amendment to LL 37 was passed on April 22, 2021, changing the effective date to April 22, 2021, and adding prohibitions for pesticides containing active ingredients listed as known, probably or possibly carcinogenic to humans by the international agency for research on cancer (IARC) of the World Health Organization.

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. The tables below detail the list changes as of June 2021, and city agency usage in 2020, the most recent year for which complete data is available. The IARC list will be added to the subsequent report, to be issued in 2022, per LL37.

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 2020. In 2019, the insecticide Pethoxamid was added to the list of carcinogenic chemicals and was not used by city agencies in 2020. No chemicals previously added to the list were used by agencies in 2020.

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.

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

Chemical name	EPA cancer classification	Report Date	Number of EPA-registered products containing chemical	Total quantity used by NYC agencies in 2020
Penoxsulam	Suggestive Evidence of Carcinogenicity, but Not Sufficient to Assess Human Carcinogenic Potential	3/24/2004	63	None
Tetrachlorvinphos (Gardona)	Group C--Possible Human Carcinogen	12/21/2016	38	None
Sedaxane	Likely to Be Carcinogenic to Humans	5/18/2011	28	None
Metaldehyde	Suggestive Evidence of Carcinogenic Potential	6/23/2005	24	None
S-Dimethenamid	Group C--Possible Human Carcinogen	8/27/2008	14	None
Penflufen	Suggestive Evidence of Carcinogenic Potential	3/30/2011	11	None
Flonicamid	Likely to be Carcinogenic to Humans	2/24/2005	9	None
Nitrapyrin	Suggestive Evidence Of Carcinogenic Potential	9/22/2016	9	None
Penthiopyrad	Suggestive Evidence of Carcinogenic Potential	10/18/2011	8	None
Ethaboxam	Suggestive Evidence of Carcinogenic Potential	3/23/2006	8	None
Pyrasulfotole	Likely to be Carcinogenic to Humans	5/17/2007	6	None
Orthosulfamuron	Suggestive Evidence Of Carcinogenic Potential	10/26/2006	6	None
Fluensulfone	Suggestive Evidence Of Carcinogenic Potential	5/7/2014	5	None
Afidopyropen	Suggestive Evidence Of Carcinogenic Potential	1/24/2018	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

Chemical name	EPA cancer classification	Report Date	Number of EPA-registered products containing chemical	Total quantity used by NYC agencies in 2020
Metrafenone	Suggestive Evidence of Carcinogenic Potential	7/6/2006	3	None
Spirodiclofen	Likely to be Carcinogenic to Humans	6/10/2004	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
Pethoxamid	Suggestive Evidence Of Carcinogenicity Potential	4/15/2019	2	None
Sodium bichromate dihydrate	Likely To Be Carcinogenic To Humans	7/1/2009	1	None
Tolpyralate	Suggestive Evidence of Carcinogenic Potential.	1/18/2017	0	None
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
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, 2020; 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	547
Thiamethoxam	Not Likely To Be Carcinogenic To Humans at doses that do not cause a mitogenic response in the liver	6/13/2005	78
Ethofenprox	Not Likely To Be Carcinogenic To Humans	2/8/2006	64
Fomesafen	Not Likely To Be Carcinogenic To Humans	11/3/2005	58
Ortho-phenylphenol	Multiple Descriptors: Not Likely To Be Carcinogenic To Humans At Doses That Do Not Alter Rat Thyroid Hormone Homeostasis	10/12/2005	53
Simazine	Not Likely to be Carcinogenic to Humans	4/14/2005	25
Para-dichlorobenzene	Not Likely To Be Carcinogenic To Humans	6/5/2007	17
Ortho-phenylphenol, sodium salt	Not Likely To Be Carcinogenic To Humans	10/12/2005	13
Sulfosulfuron	Not Likely to be Carcinogenic to Humans	12/16/2008	10
Folpet	Not likely to be carcinogenic to humans at doses that do not cause an irritation response in the mucosal epithelium	10/13/2010	9
Cyproconazole	Not Likely To Be Carcinogenic To Humans	12/4/2007	6
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 (MITC)	There are insufficient data to characterize the cancer risk of MITC	4/30/2009	1

(Sources: *Chemicals Evaluated for Carcinogenic Potential*, Office of Pesticide Programs, U.S. EPA, 2020; 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, Carbaryl and Molinate, were already classified by EPA as carcinogens and, thus, are already prohibited under LL37. No pesticides were added to the list in 2020. In 2017 the organophosphate insecticide Chlorpyrifos was added due to developmental toxicity. City agencies used 54.6 gallons and 159.0 pounds in 2020 exclusively on golf courses, which are exempt from prohibitions. 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 products currently registered by the EPA, 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 it continues to be used in containerized baits. Table 3 below summarizes the number of registered products and quantities of pesticide products containing each chemical used by city agencies in 2020.

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 2020
Atrazine	Female reproductive toxicant	7/15/2016	177	None
Avermectin	Developmental toxicant	12/3/2010	113	324.7 pounds
Chlorpyrifos	Developmental toxicant	12/15/2017	76	54.6 gallons/ 159.0 pounds
Simazine	Female reproductive toxicant	7/15/2016	25	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 2, 2020; EPA Pesticide Product Information System; NYC LL37 Agency Reporting Data)