

## San Francisco Reduced-Risk Pesticide List

for City-owned properties

Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption (click here)
<b>GENERAL USE PRODUCTS</b>						
<b>Actinovate</b>	Fungicide	73314-1	<i>Streptomyces lydicus</i> WYEC 108	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Advion Ant Bait Arena (Dupont)</b>	Insecticide	352-664	Indoxacarb 0.1%	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Advion Ant Gel (Dupont)</b>	Insecticide	352-746, 100- 1498	Indoxacarb 0.05%	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Advion Cockroach Bait Arena (Dupont)</b>	Insecticide	352-668	Indoxacarb 0.5%	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Advion Cockroach Gel Bait (Dupont)</b>	Insecticide	352-652	Indoxacarb 0.6%	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Agri-Fos Systemic Fungicide</b>	Fungicide	71962-1	Potassium phosphite 45.8%	Least hazardous (Tier III)	<b>Least Limited</b>	For use on high-value Coast Live Oaks ( <i>Quercus agrifolia</i> ) susceptible to <i>Phytophthora</i> , or in experiments with <i>Phytophthora</i> control.
<b>Alligare Rotary 2 SL</b>	Herbicide	81927-6	Imazapyr, isopropylamine salt 28%	More hazardous (Tier II)	<b>More Limited</b>	<b>Subject to "Restrictions on herbicides."</b> Alternative to Tier I herbicides. Use caution with adjoining desirable vegetation.
<b>Ant baits - borate based - self contained, gel, liquid</b>	Insecticide	Various	Boric acid, sodium tetraborate decahydrate, or other borate salts	Most hazardous (Tier I)	<b>Least Limited</b>	
<b>Avenger Weed Killer Concentrate</b>	Herbicide	82052-1	d-Limonene 60%	Least hazardous (Tier III)	<b>More Limited</b>	<b>Subject to "Restrictions on herbicides."</b> Burndown herbicide. Not for use near water.
<b>Axxe</b>	Herbicide	70299-23	Nonanoic acid, 61%	More hazardous (Tier II)	<b>More Limited</b>	<b>Subject to "Restrictions on herbicides."</b> Burndown herbicide.

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<b>Azatin XL</b>	Insecticide	70051-27	Azadirachtin 3%	Most hazardous (Tier I)	<b>More Limited</b>	For greenhouses and established plants for interiorscapes. Do not apply on flowering plants when bees are active. USE UP EXISTING STOCKS - Azatrol is safer alternative.
<b>Azatrol EC Insecticide</b>	Insecticide	2217-836	Azadirachtin (2328) 1.2%	More hazardous (Tier II)	<b>More Limited</b>	For greenhouses and established plants for interiorscapes. Do not apply on flowering plants when bees are active.
<b><i>Bacillus thuringiensis</i> insecticides (excluding mosquito control)</b>	Insecticide	Various	<i>Bacillus thuringiensis</i> (various subsp.)	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>BestYet Cedarcide</b>	Insecticide	exemptprod-009	Cedarwood oil, amorphous silica	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>BioLink Buffer &amp; Penetrant</b>	Adjuvant	exemptprod-010	Citric acid 20%, garlic extract 7%	More hazardous (Tier II)	<b>Least Limited</b>	
<b>Cimexa Insecticide Dust</b>	Insecticide	73079-12	Amorphous silica gel 100%	Least hazardous (Tier III)	<b>Least Limited</b>	Only for use on rat mites, bedbugs, lice, and yellowjackets in walls when nonchemical techniques prove ineffective.
<b>Clearcast Herbicide</b>	Herbicide	241- 437	Imazamox, ammonium salt	More hazardous (Tier II)	<b>More Limited</b>	<b>Subject to "Restrictions on herbicides."</b> For invasive aquatic weeds and pilot testing on terrestrial weeds as alternative to Tier I products.
<b>CMR Silicone Surfactant</b>	Adjuvant	1050775-50025 [INACTIVE]	Polymethyl-siloxane, nonionic	Least hazardous (Tier III)	<b>More Limited</b>	
<b>Competitor</b>	Adjuvant	2935-50173	Ethyl oleate	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Conserve SC Turf and Ornamental</b>	Insecticide	62719-291	Spinosad 11.6%	More hazardous (Tier II)	<b>Least Limited</b>	For use as a last resort in greenhouses. If feasible, alternate with other products to avoid the development of resistance. Use on high value ornamentals only.
<b>Debug Turbo</b>	Nematicide	70310-5	Fats & glyceridic oils margosa 65.8%, azadirachtin 0.7%	More hazardous (Tier II)	<b>Least Limited</b>	



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<b>Detour</b>	Mammal repellant	exemptprod- 015	White pepper 3%, white mineral oil 87%, silica 10%	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Eco Exempt/Essentria Jet Wasp and Hornet Killer</b>	Insecticide	exemptprod- 007	2-phenethyl propionate 2%, rosemary oil 3%	More hazardous (Tier II)	<b>Least Limited</b>	Preferred alternative to Wasp Freeze but may not act quickly enough during late summer, when yellowjackets are most aggressive. Consider digging up nest and baiting with honey in evening to attract raccoons.
<b>Enforcer PreCor Concentrate for Fleas</b>	Insecticide	2724-352	S-Methoprene, 1.2%; mineral oil, refined, 98.8%	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Enforcer PreCor Concentrate for Fleas</b>	Insecticide	2724-352	S-Methoprene, 1.2%; mineral oil, refined, 98.8%	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Enstar II Insect Growth Regulator (Enstar 5E)</b>	Insecticide	2724-476	S-kinoprene 64.1%	More hazardous (Tier II)	<b>More Limited</b>	USE UP EXISTING STOCKS. For use only in nurseries and on roses.
<b>Essentria IC3</b>	Insecticide	exemptprod- 013	Rosemary oil 10%, geraniol 5%, peppermint oil 2%, wintergreen oil, white mineral oil, vanillin, polyglyceryl oleate	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Fiesta Turf Weed Killer</b>	Herbicide	67702-26	Iron HEDTA 26.52%	Most hazardous (Tier I)	<b>More Limited</b>	<b>Subject to "Restrictions on herbicides."</b> USE UP EXISTING STOCKS.
<b>Garlon 4 Ultra</b>	Herbicide	62719-527	Triclopyr, butoxyethyl ester 60.45%	Most hazardous (Tier I)	<b>Most Limited</b>	<b>Subject to "Restrictions on herbicides"</b> Use only for targeted treatments of high profile or highly invasive exotics via dabbing or injection. May use for targeted spraying only when dabbing or injection are not feasible. HIGH PRIORITY TO FIND ALTERNATIVE
<b>Habitat</b>	Herbicide	241-426	Imazapyr, isopropylamine salt, 28%	More hazardous (Tier II)	<b>More Limited</b>	<b>Subject to "Restrictions on herbicides."</b> Alternative to Tier I herbicides. Use caution with adjoining desirable vegetation.



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Havahart Critter Ridder	Mammal repellent	50932-10	Oil of black pepper 0.48%	Least hazardous (Tier III)	Least Limited	
Hydroprene-only products	Various	Various	Hydroprene	Least hazardous (Tier III)	Least Limited	
Lifeline Herbicide	Herbicide	70506-310	Glufosinate, ammonium, 24.5%	More hazardous (Tier II)	More Limited	<b>Subject to "Restrictions on herbicides."</b>
Maxforce FC Magnum Roach Killer Bait Gel	Insecticide	432- 1460	Fipronil 0.05%	More hazardous (Tier II)	More Limited	Not for use in outdoor areas with potential rain exposure. USE UP EXISTING STOCKS
Maxforce FC Professional Insect Control Roach Bait Stations	Insecticide	432-1257	Fipronil 0.05%	More hazardous (Tier II)	More Limited	Not for use in outdoor areas with potential rain exposure
Maxforce FC Professional Insect Control Roach Killer Bait Gel	Insecticide	432-1259	Fipronil 0.01%	More hazardous (Tier II)	More Limited	Not for use in outdoor areas with potential rain exposure
 Maxforce Impact Roach Killer Bait	Insecticide	432-1531	Clothianidin, 1%	More hazardous (Tier II)	Least Limited	
Met52 EC Bioinsecticide	Insecticide	70127-10	Metarhizium anisopliae strain F52, 11%	Least hazardous (Tier III)	Least Limited	
Milestone	Herbicide	62719-519	Aminopyralid, triisopropanolamine salt (5928) 40.6%	More hazardous (Tier II)	More Limited	<b>Subject to "Restrictions on herbicides."</b> For invasive species in natural areas or parklands where other alternatives are ineffective, especially for invasive legumes and composites such as yellow star thistle and purple star thistle.
Milestone VM Plus, Capstone	Herbicide	62719-572	Aminopyralid, triisopropanolamine salt, 2%; Triclopyr, triethylamine salt, 16%	More hazardous (Tier II)	More Limited	<b>Subject to "Restrictions on herbicides."</b> Use only for cut stump or injection


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<b>M-pede Insecticide/Fungicide</b>	Insecticide	62719-515	Potash soap 49%	More hazardous (Tier II)	<b>More Limited</b>	Nursery, specialty gardens, and Africanized Honey Bees.
<b>Nufarm Polaris Herbicide</b>	Herbicide	228-534	Imazapyr, isopropylamine salt, 28%	More hazardous (Tier II)	<b>More Limited</b>	<b>Subject to "Restrictions on herbicides."</b> Alternative to Tier I herbicides. Use caution with adjoining desirable vegetation.
<b>OhYeah!</b>	Insecticide	exemptprod-002	Sodium lauryl sulfate	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Orange Guard</b>	Insecticide	61887-1	D-limonene 5.8%	More hazardous (Tier II)	<b>More Limited</b>	Soap spray is preferred for removing ant trails. Minimize use in enclosed areas due to scent. Potential aquatic hazard - do not apply directly to water.
<b>Organocide</b>	Insecticide	exemptprod-010	Sesame oil 5%	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Oust XP Herbicide (DuPont)</b>	Herbicide	352-601	Sulfometuron-methyl 75%	More hazardous (Tier II)	<b>Most Limited</b>	<b>Subject to "Restrictions on herbicides."</b> For use only on airport operational areas subject to FAA requirements.
<b>Pentrabark</b>	Adjuvant	83416-50001	Polyalkyleneoxide modified heptamethyltrisiloxane	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Prescription Treatment Brand Perma-Dust</b>	Insecticide	499-384	Boric acid 35%, petroleum distillates-hydotreated light 10%, HFC-134A, 1,1 difluoroethane	Most hazardous (Tier I)	<b>More Limited</b>	Use in situations where adhesion of dust is important and non-aerosol boric acid products are ineffective.
<b>Prescription Treatment Brand Wasp-Freeze Wasp and Hornet Killer</b>	Insecticide	499-362	Phenothrin .12%, d-trans allethrin .129%, CO2	Most hazardous (Tier I)	<b>Most Limited</b>	Use only when a concern for public safety, and in situations where use of EcoExempt product is inadequate or unsafe.
 <b>Roundup Custom Herbicide (Aquamaster)</b>	Herbicide	524-343	Glyphosate, isopropylamine salt 53.8%	Most hazardous (Tier I)	<b>Most Limited</b>	<b>Subject to "Restrictions on herbicides"</b> 

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<del>Roundup Promax Herbicide</del>	<del>Herbicide</del>	<del>524-579</del>	<del>Glyphosate, isopropylamine salt 48.7%</del>	<del>Most hazardous (Tier I)</del>	<del>Most Limited</del>	<del>USE UP EXISTING STOCKS. <b>Subject to "Limitations on most hazardous herbicides"</b> Use of Aquamaster + Competitor is preferred except in situations where rainfastness is needed.</del> 
Safer Soap O- Insecticidal Soap Concentrate	Insecticide	42697-60	Potassium laurate, 49.52%	More hazardous (Tier II)	Least Limited	
Shake-Away Coyote Urine Repellant Granules	Mammal repellant	exemptprod- 014	Coyote urine 5%, limestone 95%	Least hazardous (Tier III)	Least Limited	
Sluggo Slug and Snail Bait	Molluscicide	67702-3	Phosphoric acid, iron(3+) salt (1:1) 1%	Least hazardous (Tier III)	Least Limited	
Spraytech Oil	Insecticide	65328-50001	Soybean oil	More hazardous (Tier II)	Least Limited	
Stalker Herbicide	Herbicide	241-398	Imazapyr, isopropylamine salt 28%	More hazardous (Tier II)	More Limited	<b>Subject to "Restrictions on herbicides."</b> Alternative to Tier I herbicides. Use caution with adjoining desirable vegetation. USE UP EXISTING STOCK
Suppress Herbicide EC	Herbicide	51517-9	Caprylic acid, 47%; capric acid, 32%	More hazardous (Tier II)	Least Limited	<b>Subject to "Restrictions on herbicides."</b> Alternative to Tier I herbicides. Burndown product.
<b>GOLF PRODUCTS</b>						
Civitas One	Fungicide	69526-17	Mineral oil, refined, 89%	Least hazardous (Tier III)	Least Limited	
Fosphite Fungicide	Fungicide	68573-2	Potassium phosphate	Least hazardous (Tier III)	More Limited	Only for use on golf courses.
Heritage Fungicide	Fungicide	100-1093	Azoxystrobin 50%	Most hazardous (Tier I)	Most Limited	For use on Harding Park/Fleming golf courses only in preparation for tournament play

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<b>Lontrel Turf and Ornamental Herbicide</b>	Herbicide	62719-305	Clopyralid, 40.9%	More hazardous (Tier II)	<b>More Limited</b>	<b>Subject to "Restrictions on herbicides."</b> For use on Harding Park/Fleming golf courses only in preparation for tournament play. May be used 1x/year in other golf courses on greens only.
<b>Primo Maxx</b>	Growth regulator	100-937	Trinexapac-ethyl 11.3%, tetrahydrofurfuryl alcohol (THFA)	More hazardous (Tier II)	<b>More Limited</b>	Only use on Harding/Fleming golf courses in preparation for major golf tournaments.
<b>Quinclorac 1.5L</b>	Herbicide	53883-336	Quinclorac, dimethylamine salt, 18.92%	More hazardous (Tier II)	<b>More Limited</b>	<b>Subject to "Restrictions on herbicides."</b> For use on Harding Park/Fleming golf courses only in preparation for tournament play.
<b>Rhapsody ASO</b>	Fungicide	264-1155	QST 713 strain of dried Bacillus subtilis, 1.34%	Least hazardous (Tier III)	<b>Least Limited</b>	
<b>Sapphire</b>	Herbicide	62719-547	Penoxsulam	More hazardous (Tier II)	<b>More Limited</b>	<b>Subject to "Restrictions on herbicides."</b> Only use on City-owned golf courses in preparation for major golf tournaments, or for pilot testing elsewhere as a glyphosate alternative.
<b>Tourney</b>	Fungicide	59639-144	Metconazole, 50%; Silica-crystalline quartz	Most hazardous (Tier I)	<b>More Limited</b>	For management of pink snow mold ( <i>Microdochium nivale</i> ) on Harding Park/Fleming golf courses only in preparation for tournament play.
<b>Trimmit 2SC Plant Growth Regulator for Turfgrass</b>	Growth regulator	100-1014	Paclobutrazol 22.3%	More hazardous (Tier II)	<b>More Limited</b>	For use only on golf courses in preparation for tournament play.
<b>Trinity TM</b>	Fungicide	7969-257	Triticonazole, 19.2%	Most hazardous (Tier I)	<b>More Limited</b>	For use on Harding Park/Fleming golf courses only in preparation for tournament play. May be used 1x/year in other golf courses on greens only.
<b>Turflon Ester</b>	Herbicide	62719-258	Triclopyr, butoxyethyl ester 61.6%	Most hazardous (Tier I)	<b>Most Limited</b>	<b>Subject to "Restrictions on herbicides."</b> Subject to "Restrictions on herbicides". Targeted treatment of golf course turf. HIGH PRIORITY TO FIND ALTERNATIVE.

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<b>VECTOR CONTROL PRODUCTS</b>						
<b>Agnique MMF-G</b>	Mosquito control - other	7969-333	Poly(oxy-1,2-ethanediyl),alpha-isodecyl-omega-hydroxy-phosphate 32%	More hazardous (Tier II)	<b>More Limited</b>	Use for late instar mosquito larvae and pupae, in combination with microbial products. USE UP REMAINING STOCK
<b>BVA2 Mosquito Larvicide</b>	Mosquito control - other	70589-1	Highly refined petroleum distillate (mineral oil)	More hazardous (Tier II)	<b>More Limited</b>	Use as a pupacide for public health mosquito treatments.
<b>Contrac All-Weather Blox</b>	Rodenticide	12455-79	Bromadiolone 0.005%	Most hazardous (Tier I)	<b>Most Limited</b>	HIGH PRIORITY FOR REMOVAL. USE UP EXISTING STOCKS. For use only in San Francisco International Airport Terminal Areas, or for commercial lessees on city properties that are not adjacent to natural areas. In commercial establishments, use of product shall be a last resort after other, less-toxic measures have been implemented, including sanitation and trapping, and <b>only where a significant public health hazard is recognized by the SF Dept. of Public Health.</b> In all cases, monitoring shall be used whenever feasible to minimize rodenticide use.
<b>Giant Destroyer</b>	Rodenticide	10551-1	Carbon, 9%; Sodium nitrate, 50%; Sulfur, 38%	Most hazardous (Tier I)	<b>Most Limited</b>	Alternative to baits for rodents in burrows. Observe label limitations on endangered species and potential for human smoke exposure.
<b>Mosquito control - microbial</b>	Mosquito control - microbial	Various	<i>Bacillus thuringiensis</i> (Berliner or Israelensis) or <i>Bacillus sphaericus</i>	Least hazardous (Tier III)	<b>Least Limited</b>	Any microbial mosquito larvicide with active ingredients <i>Bacillus thuringiensis</i> (Berliner or Israelensis) or <i>Bacillus sphaericus</i> is categorized as Least limited.



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<b>Mosquito control products - IGRs</b>	Mosquito control - IGRs	Various	S-Methoprene (5026)	Least hazardous (Tier III)	<b>More Limited</b>	Use for tanks with limited access, or other areas where frequent treatments are infeasible. For City catchment basins, microbial products are preferred. Not for use in estuarine environments except under control of San Mateo Mosquito Abatement District.
<b>Rat Ice</b>	Rodenticide	12455- 148	Carbon dioxide	More hazardous (Tier II)	<b>More Limited</b>	
<b>Rodent control - diphacinone block baits</b>	Rodenticide	Various	Diphacinone	More hazardous (Tier II)	<b>More Limited</b>	<b>See Site-Specific Limitations.</b> For rat control only in situations with high public health concerns, where trapping is infeasible. In all cases, monitoring shall be used whenever feasible to minimize rodenticide use. HIGH PRIORITY TO FIND ALTERNATIVE.
<b>Top Gun All Weather Bait Block Rodenticide</b>	Rodenticide	67517-66	Bromethalin 0.01%	Most hazardous (Tier I)	<b>Most Limited</b>	For use only in City-owned sewer lines, San Francisco International Airport Terminal Areas, or for commercial lessees on city properties that are not adjacent to natural areas. In commercial establishments, use of product shall be a last resort after other, less-toxic measures have been implemented, including sanitation and trapping, and <b>only where a significant public health hazard is recognized by the San Francisco Dept. of Public Health.</b> In all cases, monitoring shall be used whenever feasible to minimize rodenticide use.

\*For products exempt from US EPA registration (usually 'Generally Regarded as Safe'), SF creates its own product code

\*\*A product's tier ranking reflects *hazard* (the possibility of harm) but not *risk* (probability of harm). It does not include consideration of likely exposure. It is determined using the SF Pesticide Hazard Screening Protocol,

<http://sfenvironment.org/download/guide-to-the-reduced-risk-pesticide-list-revised-2013>

\*\*\*Use limitation type is an informal rating of *risk* (probability of harm), determined by considering a product's hazard tier rating, formulation, likely exposure, and typical uses. Applications of "most limited" pesticides must be justified at an annual public hearing.