

San Francisco Reduced-Risk Pesticide List

for City-owned properties (DRAFT 9/13/21)

Product Name	Type	EPA #/ SF code*	Ingredients	Pesticide Hazard Tier**	Use Limitation Type***	Use Limitations Other uses require an exemption	Changes for 2021
<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 20%;"> <p> = product added</p> <p> = language changed</p> <p> = product removed</p> </div> <div style="text-align: center; width: 60%;"> <h3>GENERAL USE PRODUCTS</h3> </div> </div>							
Actinovate products	Fungicide	73314-1, 524-641	<i>Streptomyces lydicus</i> WYEC 108	Least hazardous (Tier III)	Least Limited		
Advance 360A Dual Choice Ant Bait Stations	Insecticide	499-496	abamectin B1, 0.011%	Most hazardous (Tier I)	Least limited		
Advion Ant Gel	Insecticide	100-1498	Indoxacarb 0.05%	Least hazardous (Tier III)	Least Limited		
Advion Cockroach Bait Arena	Insecticide	100-1486	Indoxacarb 0.5%	Least hazardous (Tier III)	Least Limited		
Advion Evolution Cockroach Gel Bait	Insecticide	100-1484	Indoxacarb 0.6%	Least hazardous (Tier III)	Least Limited		
Agri-Fos Systemic Fungicide	Fungicide	71962-1	Potassium phosphite 45.8%	Least hazardous (Tier III)	Least Limited	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, or on high-value Monterey Pines (<i>Pinus radiata</i>) susceptible to <i>Fusarium subglutinas</i>. In accordance with label restrictions for use in California, injection and basal bark spray is the only application method permitted.	

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Alligare Rotary 2 SL	Herbicide	81927-6	Imazapyr, isopropylamine salt 28%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Alternative to Tier I herbicides. Use caution with adjoining desirable vegetation.	
Ant and crawling insect baits - borate based - self contained, gel, liquid	Insecticide	Various	Boric acid, sodium tetraborate decahydrate, or other borate salts	Most hazardous (Tier I)	Least Limited		
Aquatrols Capsil	Adjuvant	9037-50003	Polyether Modified Polysiloxane, 20%	Least hazardous (Tier III)	Least limited	Alternative surfactant to CMR product	
Avian Control bird repellent, or equivalent products with same active ingredient	Repellent	88889-1	Methyl anthranilate, 20%	Least hazardous (Tier III)	Least Limited		ADDED. Some success in repelling birds during pilot studies.
Avenger Weed Killer Concentrate	Herbicide	92967-1	d-Limonene 60%	Least hazardous (Tier III)	More Limited	Subject to "Restrictions on herbicides." Burndown herbicide. Not for use near water.	
Axxe	Herbicide	70299-23	Nonanoic acid, 61%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Burndown herbicide.	
Azatrol EC Insecticide	Insecticide	2217-836	Azadirachtin (2328) 1.2%	More hazardous (Tier II)	More Limited	For greenhouses and established plants for interiorscapes. Do not apply on flowering plants when bees are active. USE UP EXISTING STOCKS - NO LONGER AVAILABLE.	REMOVED. (No more existing stock)
<i>Bacillus thuringiensis</i> insecticides (excluding mosquito control)	Insecticide	Various	<i>Bacillus thuringiensis</i> (various subsp.)	Least hazardous (Tier III)	Least Limited		

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BestYet Cedarcide	Insecticide	exemptprod-009	Cedarwood oil, amorphous silica	Least hazardous (Tier III)	Least Limited		
BioLink Buffer & Penetrant	Adjuvant	exemptprod-010	Citric acid 20%, garlic extract 7%	More hazardous (Tier II)	Least Limited		
Cambistat	Growth regulator	74779-3	Paclobutrazol, 22.3%	More hazardous (Tier II)	More limited	For use only on Ficus trees in difficult to access sites due to Muni overhead Lines, track clearances, or similar restrictions that require transit modifications or disallow pruning during normal business hours.	
Cimexa Insecticide Dust	Insecticide	73079-12	Amorphous silica gel 100%	Least hazardous (Tier III)	Least Limited	Only for use on ants, bedbugs, and lice in walls when nonchemical techniques prove ineffective.	CHANGED. Removed yellowjackets, mites from limitations
Clearcast Herbicide	Herbicide	241- 437	Imazamox, ammonium salt	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides."	
Competitor	Adjuvant	2935-50173	Ethyl oleate	Least hazardous (Tier III)	Least Limited		
Conserve SC Turf and Ornamental	Insecticide	62719-291	Spinosad 11.6%	More hazardous (Tier II)	Least Limited	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.	
Coyote urine based products	Mammal repellent	exemptprod-014	Coyote urine	Least hazardous (Tier III)	Least Limited		
Debug Turbo	Nematicide	70310-5	Fats & glyceridic oils margosa 65.8%, azadirachtin 0.7%	More hazardous (Tier II)	Least Limited		

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Detour	Mammal repellent	exemptprod-015	White pepper 3%, white mineral oil 87%, silica 10%	Least hazardous (Tier III)	Least Limited		
Essentria IC3	Insecticide	exemptprod-013	Rosemary oil 10%, geraniol 5%, peppermint oil 2%, wintergreen oil, white mineral oil, vanillin, polyglyceryl oleate	Least hazardous (Tier III)	Least Limited		
Garlon 4 Ultra	Herbicide	62719-527	Triclopyr, butoxyethyl ester 60.45%	Most hazardous (Tier I)	Most Limited	Subject to "Restrictions on herbicides" 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. USE UP EXISTING STOCKS (Vastlan is safer alternative)	
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	Subject to "Restrictions on herbicides."	
Maxforce Complete Granular Insect Bait	Insecticide	432-1255	hydramethylnon, 1%	Most hazardous (Tier I)	More Limited	Only for use in bait stations.	
Maxforce Impact Roach Gel Bait	Insecticide	432-1531	Clothianidin, 1%	More hazardous (Tier II)	Least Limited	Rotate active ingredients to manage resistance	

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Met 52 Granular Bioinsecticide	Insecticide	70127-8	Metarhizium anisopliae strain F52, 11%	Least hazardous (Tier III)	Least Limited	Preferred alternative to spinosad products	
Milestone	Herbicide	62719-519	Aminopyralid, triisopropanolamine salt (5928) 40.6%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." 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	Subject to "Restrictions on herbicides." Use only for cut stump or injection	
M-pede products	Insecticide	53219-6, 10163-324	Potash soap 49%	More hazardous (Tier II)	Least Limited	USE UP EXISTING STOCK; Safer Soap preferred	REMOVED. (Not being used - preference for Safer Soap)
Nematodes - beneficial	Insecticide	Various	Various nematode spp.	Least hazardous (Tier III)	Least Limited		ADDED. Variety of products available.
Nibor-D	Insecticide	64405-8	Disodium Octaborate Tetrahydrate, 98%	Most hazardous (Tier I)	Least limited		
Nufarm Polaris Herbicide	Herbicide	228-534	Imazapyr, isopropylamine salt, 28%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Alternative to Tier I herbicides. Use caution with adjoining desirable vegetation.	
OhYeah!	Insecticide	exemptprod-002	Sodium lauryl sulfate	Least hazardous (Tier III)	Least Limited		

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Orange Guard	Insecticide	61887-1	D-limonene (orange oil) 5.8%	More hazardous (Tier II)	More Limited	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.	
Organocide	Insecticide	exemptprod-010	Sesame oil 5%	Least hazardous (Tier III)	Least Limited		
Oust XP Herbicide (DuPont)	Herbicide	352-601	Sulfometuron-methyl 75%	More hazardous (Tier II)	Most Limited	Subject to "Restrictions on herbicides." For use only on airport operational areas subject to FAA requirements, or PG&E leased yards.	
Pentra-bark Bark Penetrating Surfactant	Adjuvant	83416-50001	Polyalkyleneoxide modified heptamethyltrisiloxan	Least hazardous (Tier III)	Least Limited		
Prescription Treatment Brand Wasp-Freeze Wasp and Hornet Killer	Insecticide	499-362	Phenothrin .12%, d-trans allethrin .129%, CO2	Most hazardous (Tier I)	Most Limited	Use only when a concern for public safety, and in situations where use of soap-based products, Suspend, or physical removal is inadequate or unsafe.	
Profoam Platinum Foaming Agent	Adjuvant	1051148-50001	Sodium lauryl sulfate, sodium lauroampho acetate, sodium decyl sulfate, 60%	More hazardous (Tier II)	Least Limited		ADDED. Foaming agent allows use of less pesticide when used on certain surfaces
Roundup Custom Herbicide (Aquamaster)	Herbicide	524-343	Glyphosate, isopropylamine salt 53.8%	Most hazardous (Tier I)	Most Limited	Subject to "Restrictions on herbicides." Use only for situations where root translocation or residual effect on sensitive areas makes other alternatives infeasible.	CHANGED. Added: "Use only for situations where root translocation or residual effect on sensitive areas makes other alternatives infeasible."
Safer Soap O-Insecticidal Soap Concentrate	Insecticide	42697-60	Potassium laurate, 49.52%	More hazardous (Tier II)	Least Limited		

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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		
Suppress Herbicide EC	Herbicide	51517-9	Caprylic acid, 47%; capric acid, 32%	More hazardous (Tier II)	Least Limited	Subject to "Restrictions on herbicides." Alternative to Tier I herbicides. Burndown product.	
Suspend Polyzone	Insecticide	432-1514	Deltamethrin, 4.75%	Most hazardous (Tier I)	Most limited	Restricted to treatments of stinging insect nests in highly public areas, where slower-working alternatives could result in hazards to the public. May also be used for carpenter bees at Camp Mather when preventive measures have failed, or for wall treatments for mosquitoes in confined areas where source cannot be located	CHANGED. Added: "...or for wall treatments for mosquitoes in confined areas where source cannot be located." (Due to situations in PUC catchbasins)
Vastlan	Herbicide	62719-687	Triclopyr choline, 45.2%; glycerol, 3%	More hazardous (Tier II)	Most limited	Subject to "Restrictions on herbicides" 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.	
Weed Slayer + Agro Gold	Herbicide	TBD	Eugenol 6.0%; water and molasses 94%. Mixed with <i>Bacillus megaterium</i>	Least hazardous (Tier III)	Least Limited	WEED SLAYER/AGRO GOLD REMOVED FROM LIST 12/8/2020 DUE TO STATE QUARANTINE - DO NOT USE!	REMOVED. Removed following state enforcement action

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Zoecon PreCor IGR Concentrate	Insecticide	2724-352	S-Methoprene, 1.2%; mineral oil, refined, 98.8%	Least hazardous (Tier III)	Least Limited		
GOLF PRODUCTS							
Civitas Turf Defense Pre-Mixed	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	
Indemnify	Nematicide	432- 1543	Fluopyram, 34.5%	More hazardous (Tier II)	Least Limited	For use golf course putting surfaces only	ADDED. Previous pilot studies conducted with UC Riverside were successful. Alternative to more hazardous nematicides and/or complete turf renovation.
Lontrel Turf and Ornamental Herbicide	Herbicide	62719-305	Clopyralid, 40.9%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." 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.	
Primo Maxx	Growth regulator	100-937	Trinexapac-ethyl 11.3%, tetrahydrofurfuryl alcohol (THFA)	More hazardous (Tier II)	More Limited	Only use on Harding/Fleming golf courses in preparation for major golf tournaments.	

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Quinclorac 1.5L	Herbicide	53883-336	Quinclorac, dimethylamine salt, 18.92%	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." For use on Harding Park/Fleming golf courses only in preparation for tournament play.	
Rhapsody	Fungicide	264-1155	QST 713 strain of dried Bacillus subtilis, 1.34%	Least hazardous (Tier III)	Least Limited		
Sapphire	Herbicide	62719-547	Penoxsulam	More hazardous (Tier II)	More Limited	Subject to "Restrictions on herbicides." Only use on City-owned golf courses in preparation for major golf tournaments, for no-mow grass as glyphosate alternative, or for <i>Arctotheca</i> control on other turf.	CHANGED. Previous limitations "Only use on City-owned golf courses in preparation for major golf tournaments, or for pilot testing elsewhere as a glyphosate alternative." (Pilot testing successful)
Tourney	Fungicide	59639-144	Metconazole, 50%; Silica-crystalline quartz	Most hazardous (Tier I)	More Limited	For management of pink snow mold (<i>Microdochium nivale</i>) on Harding Park/Fleming golf courses only in preparation for tournament play.	
Trimmit 2SC	Growth regulator	100-1014	Paclobutrazol 22.3%	More hazardous (Tier II)	More Limited	For use only on golf courses in preparation for tournament play.	
Trinity Fungicide	Fungicide	7969-257	Triticonazole, 19.2%	Most hazardous (Tier I)	More Limited	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.	

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Turflon Ester	Herbicide	62719-258	Triclopyr, butoxyethyl ester 61.6%	More hazardous (Tier II)	Most Limited	Subject to "Restrictions on herbicides." Subject to "Restrictions on herbicides". Targeted treatment of golf course turf. HIGH PRIORITY TO FIND ALTERNATIVE.	CHANGED. Previous limitations: "Subject to "Restrictions on herbicides". Targeted treatment of golf course turf. Quinclorac should be the first option. HIGH PRIORITY TO FIND ALTERNATIVE." (Quinclorac ineffective for critical weeds)
VECTOR CONTROL PRODUCTS							
Agnique MMF	Mosquito control - other	53263- 30	Poly(oxy-1,2-ethanediyl),alpha-isodecyl-omega-hydroxy-phosphate 32%	More hazardous (Tier II)	More Limited	Use for late instar mosquito larvae and pupae, in combination with microbial products. USE UP EXISTING STOCK - NO LONGER SOLD	
Contrapest	Rodent contraceptive	91601- 1	Triptolide, 0.001%; 4-vinyl cyclohexene diepoxide, 0.1%	Most hazardous (Tier I)	Least Limited	For long term reductions in rat populations.	
Giant Destroyer (smoke bomb)	Rodenticide	10551-1	Carbon, 9%; Sodium nitrate, 50%; Sulfur, 38%	Most hazardous (Tier I)	Most Limited	Alternative to baits for rodents in burrows. Observe label limitations on endangered species and potential for human smoke exposure. Not for use beneath or adjacent to structures	
Mosquito control - microbial	Mosquito control - microbial	Various	<i>Bacillus thuringiensis</i> (Berliner or Israelensis) or <i>Bacillus sphaericus</i>	Least hazardous (Tier III)	Least Limited	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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Mosquito control products - IGRs	Mosquito control - IGRs	Various	S-Methoprene (5026)	Least hazardous (Tier III)	More Limited	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.	
Mosquito control products - oils	Mosquito control - other	Various	Highly refined petroleum distillate (mineral oil) - no aromatics	More hazardous (Tier II)	More Limited	Use as a pupacide for public health mosquito treatments.	
Rat Ice	Rodenticide	12455- 148	Carbon dioxide	More hazardous (Tier II)	More Limited		REMOVED. (Still not available on West Coast. Use compressed carbon dioxide or pressurized exhaust as alternative)
Rodent control - cholcalciferol block baits	Rodenticide	Various	Cholecalciferol	More hazardous (Tier II)	More Limited	See Site-Specific Limitations. For commensal rodent 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.	
Rodent control - diphacinone baits	Rodenticide	Various	Diphacinone	More hazardous (Tier II)	More Limited	See Site-Specific Limitations. For rat control only in situations with high public health concerns, where trapping is infeasible. Burrow baits not permitted in parks. In all cases, monitoring shall be used whenever feasible to minimize rodenticide use.	CHANGED: Removed "HIGH PRIORITY TO FIND ALTERNATIVE." Lower priority than bromethalin products.

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Rodent control - bromethalin blocks	Rodenticide	Various	Bromethalin 0.01%	Most hazardous (Tier I)	Most Limited	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 only where a significant public health hazard is recognized by the San Francisco Dept. of Public Health. In all cases, monitoring shall be used whenever feasible to minimize rodenticide use. HIGH PRIORITY TO FIND ALTERNATIVE.	ADDED. Generic alternative to Top Gun product (removed). Allows flexibility with product selection, bait types. Need alternate products to avoid resistance.

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Top Gun All Weather Bait Block Rodenticide	Rodenticide	67517-66	Bromethalin 0.01%	Most hazardous (Tier I)	Most Limited	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 only where a significant public health hazard is recognized by the San Francisco Dept. of Public Health. In all cases, monitoring shall be used whenever feasible to minimize rodenticide use.	REMOVED. Replaced by generic "Rodent control - bromethalin blocks" listing

*For products exempt from US EPA registration (usually 'Generally Regarded as Safe' ingredients), 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. Tier rankings determined using the SF Pesticide Hazard Screening Protocol, <https://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.