

Appendix F

2012 San Francisco Reduced Risk Pesticide List

(attached on following pages and found online at: <http://sfenvironment.org/download/the-reduced-risk-pesticide-list>)

Product Name	Product Type	EPA Reg #/SF Code	Ingredients	Pesticide Hazard Tier	Use Limitation Type	Use Limitations (for uses not described below, a Pesticide Exemption is required)
20 Mule Team Tim-Bor Industrial	Insecticide	1624-39	disodium octaborate, tetrahydrate 98%	More hazardous (Tier II)	More Limited	For control and prevention of termites, wood-destroying beetles, and carpenter ants. Recommendation of Branch III pest control operator required for termites and beetles; recommendation of Branch II pest control operator required for carpenter ants.
3336 WP Turf & Ornamental Fungicide (Cleary's)	Fungicide	1001-63	thiophanate-methyl 50%	Most hazardous (Tier I)	Most Limited: justify use at public hearing	For use on golf courses only. HIGH PRIORITY TO FIND ALTERNATIVE
Advion Ant Bait Arena (Dupont)	Insecticide	352-664	Indoxacarb 0.1%	Least hazardous (Tier III)	Least Limited	
Advion Ant Gel (Dupont)	Insecticide	352-746	Indoxacarb 0.05%	Least hazardous (Tier III)	Least Limited	
Advion Cockroach Bait Arena (Dupont)	Insecticide	352-668	Indoxacarb 0.5%	Least hazardous (Tier III)	Least Limited	
Advion Cockroach Gel Bait (Dupont)	Insecticide	352-652	Indoxacarb 0.6%	Least hazardous (Tier III)	Least Limited	
Agnique MMF-G	Mosquito control - other	53263-30	poly(oxy-1,2-ethanediyl), al pha-isodecyl-omega-hydroxy-phosphate 32%	More hazardous (Tier II)	More Limited	Use for late instar mosquito larvae and pupae, in combination with microbial products.
Agri-Fos Systemic Fungicide	Fungicide	71962-1	potassium phosphite 45.8%	Least hazardous (Tier III)	Least Limited	For use on high-value oaks (<i>Quercus</i> spp.) susceptible to Sudden Oak Death, or in experiments with Sudden Oak Death control. When labelling permits, use on an experimental basis for <i>Anthraxnose</i> control on sycamores.
Andersons Golf Products Systemic Fungicide (equivalent to Proturf Systemic Fungicide)	Fungicide	538-88 (or 9198-187)	thiophanate-methyl 2.3%	Most hazardous (Tier I)	Most Limited: justify use at public hearing	Greens, highest profile athletic fields. HIGH PRIORITY TO FIND ALTERNATIVE

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Aquamaster Herbicide	Herbicide	524-343	glyphosate, isopropylamine salt 53.8%	More hazardous (Tier II)	More Limited	Terrestrial uses: Spot application of areas inaccessible or too dangerous for hand methods, right of ways, utility access, or fire prevention. Use for cracks in hardscape, decomposed granite and edging only as last resort. OK for renovations but must put in place weed prevention measures. Aquatic uses: May damage non-target plants. Use for emergent plants in ponds, lakes, drainage canals, and areas around water or within watershed areas. Only as a last resort when other management practices are ineffective. Note prohibition on use within buffer zone (generally 60 feet) around water bodies in red-legged frog habitat.
Avid 0.15EC Miticide/Insecticide	Insecticide	100-896	abamectin 2%	Most hazardous (Tier I)	Most Limited: justify use at public hearing	For nursery and greenhouse use only. HIGH PRIORITY TO FIND REPLACEMENT.
Azatin XL	Insecticide	70051-27	azadirachtin 3%	More hazardous (Tier II)	More Limited	Nurseries and established plants for interiorscapes. Do not apply on flowering plants when bees are active.
Azatrol EC Insecticide	Insecticide	2217-836	Azadirachtin (2328) 1.2%	More hazardous (Tier II)	More Limited	Nurseries and established plants for interiorscapes. Do not apply on flowering plants when bees are active.
BestYet Cedarcide		exemptprod-009	Cedarwood oil, amorphous silica	Least hazardous (Tier III)	Least Limited	
BotaniGard ES	Insecticide	65626-8 [INACTIVE], 82074-1 [ACTIVE]	Beauveria bassiana strain GHA 11.3%	Least hazardous (Tier III)	Least Limited	Control of thrips on landscaped plants. Do not apply on flowering plants when bees are active.
BVA2 Mosquito Larvicide		70589-1	highly refined petroleum distillate (mineral oil)	Least hazardous (Tier III)	Least Limited	
CMR Silicone Surfactant	Adjuvant	1050775-50025 [INACTIVE]	polymethylsiloxane, nonionic	Least hazardous (Tier III)	More Limited	
Competitor	Adjuvant	2935-50173	ethyl oleate	Least hazardous (Tier III)	Least Limited	

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Conserve SC Turf and Ornamental	Insecticide	62719-291	spinosad 11.6%	Least hazardous (Tier III)	Least Limited	For use as a last resort in greenhouses. If feasible, alternate with other products to avoid the development of resistance.
Contrac All-Weather Blox	Rodenticide	12455-79	bromadiolone 0.005%	Most hazardous (Tier I)	Most Limited: justify use at public hearing	HIGH PRIORITY FOR REMOVAL. USE UP EXISTING STOCKS. 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. In all cases, monitoring shall be used whenever feasible to minimize rodenticide use.
Dipel Pro DF Biological Insecticide Dry Flowable	Insecticide	73049-39	Bacillus thuringiensis, Subsp. Kurstaki, Strain Abts-351 (5829) 54%	Least hazardous (Tier III)	Least Limited	
Eco Exempt Jet Wasp and Hornet Killer	Insecticide	exemptprod-007	2-phenethyl propionate 2%, rosemary oil 3%	Least hazardous (Tier III)	Least Limited	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.
EcoExempt G	Insecticide	exemptprod-008	eugenol (clove oil) 2.9%, thyme oil 0.6%, plant oils and other ingredients 96.5%	Least hazardous (Tier III)	Least Limited	Do not use in enclosed areas.
EcoPCO DX Dust Insecticide	Insecticide	67425-16	Pyrethrins 0.4%, 2-Phenethyl Propionate 1%	More hazardous (Tier II)	More Limited	Only for use on rat mites, bedbugs and lice when nonchemical techniques prove ineffective
Enstar II Insect Growth Regulator (Enstar 5E)	Insecticide	2724-476	S-kinoprene 64.1%	Least hazardous (Tier III)	Least Limited	Nurseries, roses.
Fosphite Fungicide	Algaecide	68573-2	Potassium phosphite	Least hazardous (Tier III)	More Limited	Only for use on golf courses.
Garlon 4 Ultra	Herbicide	62719-527	triclopyr, butoxyethyl ester 60.45%	Most hazardous (Tier I)	Most Limited: justify use at public hearing	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. –Follow label requirements regarding exposure to mist. HIGH PRIORITY TO FIND ALTERNATIVE

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Gentrol Point Source Roach Control Device	Insecticide	2724-469	Hydroprene 96%	Least hazardous (Tier III)	Least Limited	
Greenmatch EX	Herbicide	exemptprod-011	lemongrass oil 50%, other ingredients (corn oil, glycerol esters, potassium oleate, lecithin)	Least hazardous (Tier III)	More Limited	Not for use in enclosed areas. Observe label precautions on PPE
Habitat	Herbicide	241-426	imazapyr, isopropylamine salt, 28%	More hazardous (Tier II)	More Limited	Preferred alternative to triclopyr for use on invasive weeds in natural areas, such as broom, <i>Cotoneaster</i> , or <i>Arundograss</i>
Heritage Fungicide	Fungicide	100-1093	azoxystrobin 50%	Most hazardous (Tier I)	Most Limited: justify use at public hearing	Consider/emphasize use of compost tea for preventative; improve aeration and monitoring programs. To be used only as a spot treatment on high profile sports greens.
Javelin WG Biological Insecticide	Insecticide	70051-66	Bacillus thuringiensis (berliner), subsp. kurstaki, strain sa-11 7.5%	Least hazardous (Tier III)	Least Limited	
JMS Stylet Oil or JMS Organic Stylet Oil	Insecticide	65564- 1	petroleum distillates, refined 97.1%	More hazardous (Tier II)	Least Limited	
JT Eaton Bait Block Rodenticide with Peanut Butter Flavorizer	Rodenticide	56-42	diphacinone 0.005%	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. In all cases, monitoring shall be used whenever feasible to minimize rodenticide use. HIGH PRIORITY TO FIND ALTERNATIVE.
Kaligreen	Fungicide	70231-1 (INACTIVE) 11581-2 (ACTIVE)	potassium bicarbonate 82%	Least hazardous (Tier III)	Least Limited	Watch for phytotoxicity.
Marathon 1% Granular Greenhouse & Nursery Insecticide	Insecticide	3125-452-AA (INACTIVE) 432-1329 (ACTIVE)	imidacloprid 1%	Most hazardous (Tier I)	Most Limited: justify use at public hearing	Nursery use for control of white fly, not for use in propagation beds. Only effective on quick-growing plants. HIGH PRIORITY TO FIND ALTERNATIVE
Maxforce FC Professional Insect Control Ant Bait Stations	Insecticide	432-1256	fipronil 0.01%	More hazardous (Tier II)	Least Limited	
Maxforce FC Professional Insect Control Roach Bait Stations	Insecticide	432-1257	fipronil 0.05%	More hazardous (Tier II)	Least Limited	

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Maxforce FC Professional Insect Control Roach Killer Bait Gel	Insecticide	432-1259	fipronil 0.01%	More hazardous (Tier II)	More Limited	Apply only in cracks, crevices and areas inaccessible to casual skin contact.
Milestone	Herbicide	62719-519	Aminopyralid , trii-sopropanola mine salt (5928) 40.6%	Most hazardous (Tier I)	Most Limited: justify use at public hearing	For invasive species in natural areas where other alternatives are ineffective, especially for invasive legumes and composites such as yellow star thistle and purple star thistle. <i>Listed as Tier I due to persistence but toxicity & potential exposure are very low.</i>
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."
M-pede Insecticide/Fungicide	Insecticide	62719-515	potash soap 49%	Least hazardous (Tier III)	More Limited	Nursery, specially gardens, and Africanized Honey Bees.
Niban Granular Bait (equivalent to Terro Multipurpose Insect Bait)	Insecticide	64405-2-AA	boric acid 5%	More hazardous (Tier II)	Least Limited	Outdoor restricted to planted areas, prefer containers; indoor must be in containers or inaccessible to humans.
Nufarm Polaris Herbicide	Herbicide	228-534	imazapyr, isopropylamine salt, 28%	More hazardous (Tier II)	More Limited	Preferred alternative to triclopyr for use on invasive weeds in natural areas, such as broom, <i>Cotoneaster</i> , or <i>Arundo</i> grass
OhYeah!	Insecticide	exemptprod-002	sodium lauryl sulfate	Least hazardous (Tier III)	Least Limited	
Orange Guard	Insecticide	61887-1	d-limonene 5.8%	Least hazardous (Tier III)	More Limited	Soap spray is preferred for removing ant trails. Minimize use in enclosed areas due to scent. Wear protective equipment. 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%	Most hazardous (Tier I)	Most Limited: justify use at public hearing	For use only on airport operational areas subject to FAA requirements. HIGH PRIORITY TO FIND ALTERNATIVE
Pentrabark	Adjuvant	83416-50001, 71962-50001 [INACTIVE]	Polyalkylene oxide modified heptamethyltrisiloxane	Least hazardous (Tier III)	More Limited	For use with Agrifos only
Prescription Treatment Brand 381B Advance Liquid Ant Bait	Insecticide	499-491	Sodium Tetraborate Dehydrate 1.3%	More hazardous (Tier II)	Least Limited	-
Prescription Treatment Brand Avert Cockroach Gel Bait Formula 3	Insecticide	499-410	abamectin 0.05%	Most hazardous (Tier I)	More Limited	Phase out - use existing supplies. <i>Tier I status is due to reproductive toxicity but exposure scenarios suggest minimal risk</i>

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Prescription Treatment Brand Wasp-Freeze Wasp and Hornet Killer Formula 1	Insecticide	499-362	Phenothrin 12%, d-trans allethrin .129%, CO2	More hazardous (Tier II)	More Limited	Use only when a concern for public safety, and in situations where use of EcoExempt product is inadequate or unsafe.
Roundup Pro Herbicide	Herbicide	524-475	Glyphosate, isopropylamine salt 41%	More hazardous (Tier II)	More Limited	USE UP EXISTING STOCK - FOR REMOVAL IN 2013. Spot application of areas inaccessible or too dangerous for hand methods, right of ways, utility access, or fire prevention. Use for cracks in hardscape, decomposed granite and edging only as last resort. OK for renovations but must put in place weed prevention measures. Note prohibition on use within buffer zone (generally 60 feet) around water bodies in red-legged frog habitat.
Roundup Promax Herbicide	Herbicide	524-579	Glyphosate, isopropylamine salt 48.7%	More hazardous (Tier II)	More Limited	Use of Aquamaster + Competitor is preferred except in situations where rainfastness is needed. Spot application of areas inaccessible or too dangerous for hand methods, right of ways, utility access, or fire prevention. Use for cracks in hardscape, decomposed granite and edging only as last resort. OK for renovations but must put in place weed prevention measures. Note prohibition on use within buffer zone (generally 60 feet) around water bodies in red-legged frog habitat.
Safer Brand Ant & Crawling Insect Killer	Insecticide	59913-1	Diatomaceous earth 77.69%	Least hazardous (Tier III)	Least Limited	
Sapphire	Herbicide	62719-547	Penoxsulam	More hazardous (Tier II)	More Limited	Only use on City-owned golf courses in preparation for major golf tournaments.
Sluggo Slug and Snail Bait	Molluscicide	67702-3	Phosphoric acid, iron(3+) salt (1:1) 1%	Least hazardous (Tier III)	Least Limited	
Sonar A.S.	Herbicide	67690-4	fluridone 41.7%	Least hazardous (Tier III)	More Limited	USE UP EXISTING STOCK - PLANNED FOR REMOVAL. Emergent plants in ponds, lakes, drainage canals. Only as a last resort when other mgmt. practices are ineffective.
Spraytech Oil	Insecticide	65328-50001	soybean oil	Least hazardous (Tier III)	Least Limited	Consider using this instead of JMS Stylet Oil for aphids and other insects.
Terro Ant Killer II, Terro Ant Killer II Liquid Ant Baits, Terro-PCO Liquid Ant Bait	Insecticide	149-8	sodium tetraborate decahydrate 5.4%	More hazardous (Tier II)	Least Limited	-

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Top Gun All Weather Bait Block Rodenticide	Rodenticide	67517-66	bromethalin 0.01%	More hazardous (Tier II)	Most Limited: justify use at public hearing	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. In all cases, monitoring shall be used whenever feasible to minimize rodenticide use.
Trimmit 2SC Plant Growth Regulator for Turfgrass	Growth regulator	100-1014	paclobutrazol 22.3%	Most hazardous (Tier I)	More Limited	For use only on golf courses in preparation for tournament play
Turfлон Ester	Herbicide	62719-258	triclopyr, butoxyethyl ester 61.6%	Most hazardous (Tier I)	Most Limited: justify use at public hearing	Targeted treatment of turf; broadcast application requires exemption. HIGH PRIORITY TO FIND ALTERNATIVE. Note prohibition on use within buffer zone (generally 60 feet) around water bodies in red-legged frog habitat - Lake Merced, Golden Gate Park.
Zoecon Altosid Briquets	Mosquito control - IGRs	2724-375	S-Methoprene (5026) 8.62%	Most hazardous (Tier I)	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.
Zoecon Altosid Liquid Larvicide Mosquito Growth Regulator	Mosquito control - IGRs	2724-392	S-Methoprene (5026) 5%	More hazardous (Tier II)	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.
Zoecon Altosid Pellets, Zoecon Altosid Pellets WSP	Mosquito control - IGRs	2724-448	S-Methoprene (5026) 4.25%	More hazardous (Tier II)	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.
Zoecon Altosid XR Extended Residual Briquets	Mosquito control - IGRs	2724-421	S-Methoprene (5026) 2.1%	More hazardous (Tier II)	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.

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Zoecon Altosid XR-G, Zoecon Altosid Pro-G Insect Growth Regulator	Mosquito control - IGRs	2724-451	S-Methoprene (5026) 1.5%	More hazardous (Tier II)	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.
Zoecon Gentrol IGR Concentrate	Insecticide	2724-351	hydroprene 9%	Least hazardous (Tier III)	Least Limited	