

## 1 SCOPE

This specification establishes requirements for herbicides used in the State of California by agencies and departments. All the proposed products shall be registered with California Department of Pesticide Regulation (CDPR).

## 2 APPLICABLE SPECIFICATIONS / STANDARDS

Specifications and standards referenced in this document in effect on the opening of the Invitation for Bid (IFB) form a part of this specification where referenced. Where applicable, the latest version of the reference document shall be used. Consistent with the General Provisions, this specification does not preclude compliance with other federal, state, or local laws and regulations that may apply.

### 2.1 LAWS AND REGULATIONS

2.1.1 California Code of Regulations (Title 3. Food and Agriculture) Division 6. Pesticides and Pest Control Operations, Chapter 2. Pesticides, Subchapter 1. Pesticide Registration.

2.1.2 California Code of Regulations (Title 3. Food and Agriculture) Division 6. Pesticides and Pest Control Operations, Chapter 3. Pest Control Operations, Subchapter 2. Work Requirements, Article 4. Storage, Transportation and Disposal

## 3 REQUIREMENTS

### 3.1 PERFORMANCE:

#### A Herbicide - Growth Regulator - Aminopyralid

The product shall be formulated to control susceptible broadleaf weeds including invasive and noxious weeds in non-crop land areas, such as roadsides, irrigation ditch banks, and natural areas such as campgrounds, trailheads, etc.

Active ingredient: 40% - 42% Aminopyralid, Triisopropanolamine Salt  
Reference Brand: Milestone

#### B Herbicide - Phosynthesis Inhibitor – Bromacil and Diuron

The product shall be formulated as a pre-emergent herbicide with post-emergent activity for use on crown roadways. This product must be effective for several annual/perennial weeds.

Active ingredient: 40%-42% Bromacil and 40% Diuron  
Reference Brand: Krovar I DF

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**C Herbicide - Amino Acid Synthesis Inhibitor – Chlorsulfuron**

The product shall be formulated for control of annual, biennial, and perennial weeds on public land and on rights-of-way, industrial sites, etc.

Active ingredient: 75%- 76% Chlorsulfuron

Reference Brand: Telar XP

**D Herbicide - Growth Regulator – Clopyralid**

The product shall be formulated for postemergence control of broadleaf weeds and woody brush species in forest sites, right-of-way and certain ornamental plantings such as non-leguminous woody species or ornamental grasses in landscapes.

Active ingredient: 40%-42% Clopyralid, Monoethanolamine salt

Reference Brand: Transline

**E Herbicide - Contact-PHS-Membrane Disruptor – Copper**

The product shall be formulated for use in slow moving or quiescent bodies of water including golf course ponds, potable water reservoirs, fish hatcheries for control of aquatic weeds such as Hydrilla, Egeria, Southern Naiads, etc.

Active ingredient: 24% -25% Copper –Ethylenediamine complex

Reference Brand: Harpoon

**F Herbicide - Cell Membrane Disruptor- Diquat dibromide**

The product shall be formulated to suppress and control the aquatic and industrial vegetative growth of various plant species including algae, aquatic weeds, broadleaf weeds and grasses.

Active ingredient: 37%-38% Diquat dibromide

Reference Brand: Reward Landscape and Aquatic

**G Herbicide - Cell Membrane Disruptor- Diquat dibromide**

The product shall be formulated to suppress and control the aquatic and industrial vegetative growth of various plant species including algae, aquatic weeds, broadleaf weeds and grasses.

Active ingredient: 37.3%, Diquat dibromide

Reference Brand: Tribune

**H Herbicide - Seedling Root Growth Inhibitor – Dithiopyr**

The product shall be formulated for early post-emergent control of crabgrass and pre-emergent control of at least 40 grassy and broadleaf weeds in established lawns, noncropland, industrial sites, and ornamental turf. The product shall be available in 5 oz. soluble bags.

Active Ingredient: 40% - 42% Dithiopyr

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Reference Brand: Dimension Ultra 40WP

**I Herbicide - Lipid Synthesis Inhibitors – Fluazifop**

The product shall be formulated as a postemergence herbicide for the control of annual and perennial grass weeds in ornamentals and certain landscape areas, roadsides and commercial areas.

Active Ingredient: 24% - 26% Fluazifop-P-Butyl  
Reference Brand: Fusilade II Turf and Ornamental

**J Herbicide - Cell Membrane Disruptor – Flumioxazin**

The product shall be formulated as a selective herbicide to maintain bare ground non- crop areas. It shall be effective as a pre-emergent and post-emergent herbicide for control of Salsola Iberica.

Active ingredient: 51%-52% Fluminoxazin  
Reference Brand: Payload

**K Herbicide, Pigment Inhibitor, Fluridone**

The product shall be formulated and shall be registered to control aquatic vegetation in water ponds, lakes, potable water sources. This shall be slow-release pellet formulation of fluridone.

Active ingredient: 5.0% Fluridone  
Reference Brand: Sonar SRP

**L Herbicide - Amino Acid Synthesis Inhibitor/EPSP Synthetase Inhibitor – Glyphosate**

The product shall be formulated as a postemergence, systemic herbicide for broad- spectrum control of many annual weeds, perennial weeds, woody brush and trees. It shall be formulated with surfactant. If surfactant is not in the formulation, the bid price must include the price of surfactant for use with this product.

Active ingredient: 50%-54% Glyphosate, Dimethylamine salt  
Reference Brand: Accord XRT II

**M Herbicide - Amino Acid Synthesis Inhibitor/EPSP Synthetase Inhibitor – Glyphosate**

The product shall be formulated as a postemergence, systemic herbicide for broad- spectrum control of many annual weeds, perennial weeds, woody brush and trees. It shall be formulated with surfactant. If surfactant is not in the formulation, the bid price must include the price of surfactant for use with this product.

Active ingredient: 71%- 74 % Glyphosate, Isopropylamine salt and 2% - 3% Diquat  
Dibromide  
Reference Brand: QuikPro

**N Herbicide - Amino Acid Synthesis Inhibitor - Glyphosate (Wet Sites)**

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This shall be formulated as a post-emergent, non-selective herbicide for control of annual weeds, perennial weeds, woody brushes in and around aquatic sites. This product shall be registered in California for aquatic application. It must be suitable for cut stump, Injection and Frill application.

Active Ingredient: 53.8% of Glyphosate, Isopropylamine Salt  
Reference Brand: Aquamaster, Rodeo

**O Herbicide - Amino Acid Synthesis Inhibitor/EPSP Synthetase Inhibitor – Glyphosate**

The product shall be formulated as a water soluble liquid for aquatic and terrestrial use as a postemergence herbicide for broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees.

Active ingredient: 50.0%-54.0% Glyphosate, Isopropylamine salt  
Reference Brand: Roundup Custom

**P Herbicide - Amino Acid Synthesis Inhibitor/EPSP Synthetase Inhibitor – Glyphosate**

The product shall be formulated as a postemergence, systemic herbicide for broad- spectrum control of many annual weeds, perennial weeds, woody brush and trees. It shall be formulated with surfactant. If surfactant is not in the formulation, the bid price must include the price of surfactant for use with this product.

Active ingredient: 50%-54% Glyphosate, Isopropylamine salt  
Reference Brand: Roundup PRO Concentrate

**Q Herbicide - Amino Acid Synthesis Inhibitor/EPSP Synthetase Inhibitor – Glyphosate**

The product shall be formulated as a postemergence, systemic herbicide for broad- spectrum control of many annual weeds, perennial weeds, woody brush and trees. It shall be formulated with surfactant. If surfactant is not in the formulation, the bid price must include the price of surfactant for use with this product.

Active ingredient: 41%-49% Glyphosate, Potassium salt  
Reference Brand: Roundup PROMAX

**R Herbicide – Imazapyr**

This product shall be formulated as an aqueous solution to be mixed with water and surfactant and applied as a spray solution to control floating and emergent undesirable vegetation in or near bodies of water which may be flowing, non-flowing, or transient. Aquatic sites consist of standing and flowing water, estuarine/marine, wetland and riparian areas and non-irrigation ditchbanks.

Active ingredient: 27.77%-28.7%, Isopropylamine salt of Imazapyr  
Reference Brand: Habitat

**S Herbicide - Cell Membrane Disruptors – Isoxaben**

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The product shall be formulated as a preemergence herbicide for control of broadleaf weeds in established turfgrass, landscape ornamentals, etc.

Active ingredient: 75%- 76% Isoxaben  
Reference Brand: Gallery 75DF

**T Herbicide - Seedling Growth Root Inhibitor – Oryzalin**

The product shall be formulated as a selective preemergence surface applied herbicide for control of annual grasses and many broadleaf weeds in Landscape ornamentals, drainage areas, non cropland and industrial sites, etc.

Active ingredient: 40%-42% Oryzalin  
Reference Brand: Surflan A.S. Specialty

**U Herbicide - Cell Membrane Disruptor- PPO inhibitor – Oxyfluorfen**

The product described in this line item shall be used as an herbicide to suppress and control the vegetative growth of various plant species including broadleaf weeds (annual, perennial and biennial) and grasses (annual, perennial and biennial). The chemical formulation shall be emulsifiable concentrate.

Active ingredient: 23%, OXYFLUORFEN.  
Reference Brand: Goal 2XL

**V Herbicide - Cell Membrane Disruptor- PPO inhibitor – Oxyfluorfen**

The product shall be formulated as a pre-emergent herbicide for use in non-landscaped areas. The product shall be effective for marestalk and horseweed. The product shall be virtually odorless and shall provide total efficacy in one application.

Active ingredient: 41%- 42% Oxyfluorfen  
Reference Brand: GoalTender

**W Herbicide - Seedling Growth Inhibitor – Pendimethalin**

The product shall be formulated as a pre-emergent weed control herbicide in turfgrasses, landscape. It shall be water-based formulation in an ultra-thin capsule.

Active ingredient: 38%-40% Pendimethalin  
Reference Brand: Pendulum AquaCap

**X Herbicide - Seedling Growth Inhibitor – Prodiamine**

The product shall be formulated for pre-emergent control of grass and broadleaf weeds in non-crop areas.

Active ingredient: 65%-66% Prodiamine.  
Reference Brand: ProClipse 64 WDG

**Y Herbicide - Amino Acid Synthesis Inhibitor – Sulfometuron and Chlorsulfuron**

The product shall be a mixture of two herbicides for control of many annual and perennial grasses and broadleaf weeds in non-crop sites. The product shall be dry formulation and be available in precision pack. The product must stay in suspension in cold weather.

Active ingredient: 50%-52% Sulfometuron Methyl & 25%-26% Chlorsulfuron

Reference Brand: Landmark XP

**Z Herbicide - Growth Regulator – Triclopyr**

The product shall be formulated for herbaceous broadleaf weeds and woody plants in non-crop areas including industrial sites, rights-of-way (roadsides, electric utility and communication transmission and distribution lines, pipelines and railroads) and natural areas

Active ingredient: 16% - 18% Triclopyr Triethylamine Salt and 2% - 4% Aminopyralid

Triisopropanolamine Salt

Reference Brand: Capstone

**AA Herbicide - Growth Regulator – Triclopyr**

The product shall be formulated for the control woody or herbaceous broadleaf plants in non-crop areas including rights-of-way, storage sites, etc. The product shall be suitable for cut stump application.

Active ingredient: 60% - 62% Triclopyr, Butoxyethyl Ester

Reference Brand: Garlon 4 Ultra

**BB Herbicide - Growth Regulator – Triclopyr**

The product shall be ready to use formulation for woody plants in non-crop areas including rights-of-way, storage sites, etc. The product shall be suitable for cut stump application.

Active ingredient: 13% - 14% Triclopyr, Butoxyethyl Ester

Reference Brand: Pathfinder II

**CC Herbicide - Unknown – Endothall**

The product shall be formulated to control aquatic plants in still, slow moving, and flowing aquatic sites. This product must be effective against a broad range of aquatic plants.

Active ingredient: 40%-42% Endothall, Dipotassium salt

Reference Brand: Aquathol K

**DD Insecticide - Pyrethroids – Cyfluthrin**

The product shall be formulated to control insects indoors and outdoors, it shall have a broad spectrum label including spiders, ants, boxelder bugs, mosquitoes, bees, cockroaches, crickets, fleas, flies, bed bugs, silverfish, ticks, wasps, wood infesting borers and more.

Active ingredient: 6.00% Cyfluthrin  
Reference Brand: CY-Kick CS

### **EE Insecticide - Pyrethroids – Cypermethrin**

The product shall be formulated to control insects indoors and outdoors, including lawns and landscape, it shall have a broad spectrum label including termites, spiders, ants, boxelder bugs, mosquitoes, bees, cockroaches, crickets, fleas, flies, bed bugs, silverfish, ticks, wasps, wood infesting borers and more.

Active ingredient: 24% - 26% Cypermethrin  
Reference Brand: Demon Max

### **FF Termicide/Insecticide – Pyrethroid - Permethrin**

The product shall be formulated to control insect pests on lawns, ornamental trees, shrubs, and around buildings.

Active ingredient: 36%-37% Permethrin  
Reference Brand: Tengard SFR

### **GG Pesticide – Anticoagulant Rodenticide – Diphacinone**

The product shall be formulated to control California Ground Squirrels (*Spermophilus beecheyi*) and Townsend Ground Squirrels (*Spermophilus townsendi*) around buildings, yards and flower gardens.

Active ingredient: 0.005% Diphacinone 2-diphenylacetyl-1, 3-indandione  
Reference Brand: Ground Squirrel Bait by Wilco Ag

### **HH Pesticide – Rodent Bait – Diphacinone**

The product shall be formulated to control California Ground Squirrels (*Spermophilus beecheyi*), Deer Mice and House Mice in rodent infested areas.

Active ingredient: 0.01% Diphacinone 2-diphenylacetyl-1, 3-indandione  
Reference Brand: Rodent Bait Diphacinone Treated Grain

### **II Activator adjuvant – Non – Ionic Surfactant**

The product shall be formulated as a low-foaming, non-ionic type spreader adjuvant to provide quick wetting, more uniform distribution, and increases retention of spray by reducing surface tension of the spray droplets. It shall be a water soluble adjuvant for applications as an interfacing agent for wettable powders.

Active ingredients: 90% - 92, Alkyl phenol ethoxylate, alcohol ethoxylate and Tall Oil Fatty acid  
Reference Brand: Activator 90

**JJ Activator adjuvant – Non – Ionic Surfactant**

The product shall be formulated to provide optimum wetting and spreading (by reducing surface tension) of herbicide by spread over the waxy cuticle of a leaf or to penetrate through the small hairs present on leaf surface, insecticides, miticides, fungicides, herbicides and growth regulating hormones. The product shall be formulated for applications on agricultural, forestry, turf and ornamental, industrial, structural and non-cropland sites.

Active ingredients: 90%, Alkyl phenol ethoxylate, Isopropanol and Fatty acids  
Reference Brand: R-11 Spreader Activator

**KK Activator adjuvant – Oils**

The product shall be specially formulated as a modified vegetable oil containing a non- ionic emulsifier system, which can be used as an additive with aquatically labeled pesticides.

Active ingredients: 98% - 100%, Ethyl Oleate, Sorbitan Alkylpolyethoxylate Ester, Dialkyl Polyoxyethylene Glycol  
Reference Brand: Competitor Modified Vegetable Oil

**LL Activator adjuvant – Oils**

The product shall be specially formulated as a modified vegetable oil containing a non- ionic emulsifier system, which can be used as an additive with aquatically labeled pesticides. Hasten-EA is a formulated modified vegetable oil created as a surfactant concentrate providing excellent wetting characteristics.

Active ingredients: 100%, Ethylated seed oil, Polyoxyalkylene Fatty Ester  
Reference Brand: Hasten EA Modified Vegetable Oil

**MM Activator adjuvant – Oils**

The product shall be specially formulated as a non-ionic blend of surfactants and is designed to be used with a wide variety of pesticides where an oil concentrate adjuvant is recommended.

Active ingredients: 99% - 100%, Heavy range paraffinic oil, polyol fatty acid esters, polyethoxylated derivatives  
Reference Brand: Agri-Dex

**NN Activator adjuvant – Hydroxy Carboxylic Acid, Phosphoric Acids and Ammonium Salt**

The product shall be formulated as a water conditioning agent designed to enhance pesticide performance by modifying factors such as pH and hardness of the spray water, additionally it will contain ammoniacal nitrogen along with the buffers, sequestrants and chelating agents to enhance an effective uptake of pesticides.

Active ingredient: 48% - 50%, Hydroxy Carboxylic Acid, Phosphoric Acids and Ammonium Sulfate and 1% - 2%, Polyacrylic acid

Reference Brand: Quest

**OO Activator adjuvant – Oils**

The product shall be specially formulated as a non-ionic blend of special surfactant and a highly refined spray mineral oil, which can be used to improve pesticide application by modifying the wetting and deposition characteristics of the spray solution resulting in a more even and uniform spray deposit.

Active ingredients: 85%, Mineral oil, 15% Polyoxyalkylene Sorbitan Fatty Acid Esters  
Reference Brand: Grounded W

**PP Dye - Colorant**

The product shall be formulated non-staining, non-hazardous, 100% non-ionic polymeric water-soluble colorant designed to be used with pesticide.

Active ingredient: proprietary  
Reference Brand: Blazon Blue

**QQ Dye - Colorant**

The product shall be formulated as non-staining aqueous mixture designed to be used with pesticide as a spray pattern indicator.

Active ingredient: temporary colorant  
Reference Brand: Hi-Light Blue

**RR Dye - Colorant**

The product shall be formulated as a non-staining, non-toxic colorant compatible with water soluble solution designed to be used with pesticide and for both agricultural and non-crop uses.

Active ingredient: Triphenylmethane blue dye, aqueous solution  
Reference Brand: Mark-It Blue

**SS Dye - Green Marker Dye**

The product shall be formulated as non-staining, non-toxic dye designed to be used with water-soluble pesticide.

Active ingredient: proprietary  
Reference Brand: none