

432-1465

09/17/2007

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RONSTAR® FLO Herbicide

Preemergence Herbicide for the Control of Annual Grasses and Broadleaf Weeds In Turf and Ornamentals Including Landscape Ornamental Beds on Residential Properties by a Professional Applicator.

For sale to and use by Professional Applicators only. Not for sale to or use by homeowners/consumers. Not for Use in Turfgrass on Residential Properties.

FOR SALE TO, USE AND STORAGE BY COMMERCIAL NURSERY, TURF AND LANDSCAPE PERSONNEL ONLY. NOT FOR USE ON HOME LAWNS.

ACTIVE INGREDIENT:

Oxadiazon [2-tert-butyl-4-(2,4-dichloro-5-isopropoxyphenyl)-Δ-1, 3, 4-oxadiazolin-5-one] 34.1%

INERT INGREDIENTS:

..... 65.9%

..... 100.0%

This product contains 3.17 lb ai/gallon

EPA Reg. No. 432-1465

EPA Est.

KEEP OUT OF REACH OF CHILDREN CAUTION

For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577
For PRODUCT USE Information Call 1-800-334-9745

FIRST AID

ACCEPTED

If swallowed:	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. 	with COMMENTS In EPA Letter Dated: SEP 17 2007
If in eyes:	<ul style="list-style-type: none"> Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice. 	<small>Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.</small>
If on skin or clothing:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. 	432-1465
If inhaled:	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice. 	

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS

CAUTION

Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, and neoprene rubber ≥ 14 mils. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators and other handlers must wear: Long-sleeved shirt and long pants, Shoes plus socks, and Chemical resistant gloves such as barrier laminate, butyl rubber, nitrile or neoprene gloves. In addition, mixers and loaders must wear a chemical-resistant apron. See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS:

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. RONSTAR® FLO should not be used in areas where irrigation or rainfall results in the direct or indirect (via ditches and canals) contamination of surface waters through dissolved runoff or erosion of soil particles to which oxadiazon is absorbed.

DIRECTIONS FOR USE

**It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Read entire label before using this product.**

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls, chemical resistant gloves made of any waterproof material, and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard (WPS) for agricultural pesticides 40 CFR Part 170. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not allow people or pets to enter treated areas until sprays have dried.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE

Do not store in or around the home.

PESTICIDE DISPOSAL

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

Empty containers should be triple rinsed (or equivalent), then offered for recycling or reconditioning; or puncture and disposed of in a sanitary landfill, or by incineration; or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

GENERAL INFORMATION

RONSTAR® FLO is a selective, preemergent herbicide for control of many annual grasses and broadleaf weeds in turf and on a variety of woody ornamental shrubs and trees. RONSTAR® FLO controls weeds by killing the young weed seedlings as they come in contact with the herbicide during germination.

Apply RONSTAR® FLO with a properly calibrated sprayer that will apply the spray solution uniformly (uniform application is essential for satisfactory weed control). Calibrate the sprayer prior to use, according to the manufacturer's directions and check daily to be certain that the equipment is working properly.

Do not allow domestic animals to graze treated areas. Avoid contamination of water intended for irrigation and domestic use.

TURF

For use in dormant, established Bermudagrass, St. Augustinegrass* and Zoysia turf* such as fairways, parks, golf courses and lawns. RONSTAR® FLO controls Crabgrass, Goosegrass, Annual Bluegrass, Annual Sedge and Virginia Buttonweed.

RONSTAR® FLO should be applied at least 2-3 weeks prior to green up. Rake turf area free of leaves, mowing if necessary so the spray solution reaches the soil surface. Measure the area to be treated and uniformly apply the amount required. If rain is not expected shortly after application, irrigate the turf thoroughly.

- DO NOT USE ON ST. AUGUSTINE GRASS OR ZOYSIA TURF IN CALIFORNIA.

Hawaii recommendation only: RONSTAR® FLO may be applied to newly sprigged Zoysiagrass being grown for sod. Insure the spray reaches the soil surface and if rain is not expected shortly after application, irrigate the turf thoroughly.

PREEMERGENCE WEED CONTROL

WEEDS CONTROLLED	RONSTAR® FLO FL OZ PER 1000 sq. ft.	DIRECTIONS
Crabgrass (<i>Digitaria</i> spp.) Goosegrass (<i>Eleusine indica</i>) Annual Bluegrass (<i>Poa annua</i>)* Annual Sedge (<i>Cyperus compressus</i>)*	1.85-2.8	Apply in late winter or early spring prior to weed seed germination and turf greenup. Treatment is effective only against spring germinating <i>Poa annua</i> . A subsequent application can be made 4 months after the previous treatment. Apply in 0.75 – 3.5 gallons of water per 1000 sq. ft.
Virginia Buttonweed (<i>Diodia virginiana</i>)	2.8	

*Not currently registered in California.

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ANNUAL WEED CONTROL DURING BERMUDAGRASS ESTABLISHMENT FROM SPRIGS*

WEEDS CONTROLLED	RONSTAR® FLO FL OZ PER 1000 sq. ft.	DIRECTIONS
Crabgrass, Goosegrass, and Annual Sedge	1.85	Make application immediately prior to or immediately after sprigging. Disturbance of the soil surface after RONSTAR® FLO application may disrupt the herbicide barrier and reduce effectiveness. Irrigate immediately after application for best results.

Do not apply RONSTAR® FLO to newly seeded areas. Seeding into treated areas should be delayed until 4 months after treatment. RONSTAR® FLO should not be used on putting greens or tees because of the varying cultural practices used. Apply in 0.75 – 3.5 gallons of water per 1000 sq. ft.

The maximum single application rate is 3.7 fl. oz. per 1000 sq. ft. and no more than 2 applications per year.

The maximum application rate allowed per year is 5.55 fl. oz of product per 1000 sq. ft. per year (1.89 gallons of product per acre per year) (equivalent to 6 pounds ai/A/year), except in areas where there is heavy weed infestation. In areas of heavy weed infestation, the maximum application rate is 7.4 fl. oz of product per 1000 sq. ft. per year (2.52 gallons of product per acre per year) (equivalent to 8 pounds ai/A/year). For best results, water-in product as soon as practical after application.

*Not currently registered in California.

ORNAMENTALS AND CONIFER NURSERIES

WOODY ORNAMENTAL SHRUBS AND TREES, CONIFER NURSERY AND ORNAMENTALS ON RESIDENTIAL PROPERTIES:

Must be applied by Professional Applicators only. Apply RONSTAR® FLO prior to weed seed germination, as a directed spray to the soil surface or as an over the top spray on tolerant ornamentals used as ground cover listed on this label. RONSTAR® FLO can be applied to both newly transplanted and established plants. Application can be made to actively growing or dormant plants. However, RONSTAR® FLO should not be applied during bud break or during the 4 weeks after bud break.

Rainfall or overhead irrigation (one-half inch) immediately after application of RONSTAR® FLO will improve weed control activity. Rainfall or overhead irrigation immediately after over the top sprays is required to move the RONSTAR® FLO from the foliage to the soil surface.

RONSTAR® FLO should not be mixed into the soil. Cultivating or disturbing the soil may reduce the weed control activity of RONSTAR® FLO. **Do not apply in greenhouses** as plant injury may result from codistillation of RONSTAR® active ingredient onto leaf surfaces in condensation.

AMOUNT TO USE: Ground Application – Apply RONSTAR® FLO broadcast, in a minimum of 1 gallon per 1000 sq. ft., to ornamentals at 1.85 to 2.8 fl oz per 1000 sq. ft., depending on the weeds to be controlled, as listed below. Remove existing weed growth before application. The maximum number of applications is 2 per year. A subsequent application can be made 4 months after previous treatment. For over the top sprays, irrigate within 2 hours after application, otherwise injury to the ornamentals may result.

ORNAMENTALS IN RESIDENTIAL PROPERTIES: RONSTAR® FLO may be applied to landscape beds consisting of well defined areas of solid or mixed stands of trees, shrubs, and ground covers located around buildings as well as in open areas of the residential property. Carefully measure the area of each bed to be treated to insure an accurate application rate.

Restrictions:

- Do not apply in greenhouses as plant injury may result from co-distillation of Ronstar® active ingredient onto leaf surfaces in condensate.
- Do not mechanically mix RONSTAR® FLO into the soil.
- Do not permit people or pets to enter the treated area until after the directed spray application of Ronstar® FLO is watered in and the soil surface is dry.
- Do not apply with adjuvants or drift control agents.

WOODY ORNAMENTAL SHRUBS AND TREES, CONIFER NURSERIES, AND ORNAMENTALS ON COMMERCIAL PROPERTIES:

Apply RONSTAR® FLO prior to weed seed germination, as a directed spray to the soil surface or as an over the top spray only on labeled species. RONSTAR® FLO can be applied to both newly transplanted and established plants. Application can be made to actively growing or dormant plants. However, RONSTAR® FLO should not be applied during bud break or during the 4 weeks after bud break.

Rainfall or overhead irrigation (one-half inch) immediately after application of RONSTAR® FLO will improve weed control activity. Rainfall or overhead irrigation immediately after over the top sprays is required to move the RONSTAR® FLO from the foliage to the soil surface.

RONSTAR® FLO should not be mixed into the soil. Cultivating or disturbing the soil may reduce the weed control activity of RONSTAR® FLO. **Do not apply in greenhouses** as plant injury may result from co-distillation of RONSTAR® active ingredient onto leaf surfaces in condensation.

The maximum single application rate is 3.7 fl. oz. per 1000 sq. ft. and no more than 2 applications per year.

The maximum application rate allowed per year is 5.55 fl. oz of product per 1000 sq. ft. per year (1.89 gallons of product per acre per year) (equivalent to 6 pounds ai/A/year), except in areas where there is heavy weed infestation. In areas of heavy weed infestation, the maximum application rate is 7.4 fl. oz of product per 1000 sq. ft. per year (2.52 gallons of product per acre per year) (equivalent to 8 pounds ai/A/year). For best results, water-in product as soon as practical after application.

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RONSTAR® FLO at 1.85 to 2.8 fl oz per 1000 sq. ft. is effective in controlling annual grasses and broadleaf weeds such as:

ANNUAL BROADLEAF WEEDS		ANNUAL GRASSES	
Bittercress	(<i>Cardamine</i> spp.)	Annual Bluegrass†	(<i>Poa annua</i>)
Bristly Oxtongue†	(<i>Picris echioides</i>)	Annual Sedge†	(<i>Cyperus compressus</i>)
Carpetweed	(<i>Mollugo verticillata</i>)	*Barnyardgrass	(<i>Echinochloa crus-galli</i>)
Cheeseweed†	(<i>Malva parviflora</i>)	Carpetgrass	(<i>Axonopris officinis</i>)
*Common Groundsel	(<i>Senecio vulgaris</i>)	Crabgrass	(<i>Digitaria</i> spp.)
Common Purslane	(<i>Portulaca oleracea</i>)	Fall Panicum	(<i>Panicum dichotomiflorum</i>)
*Evening Primrose	(<i>Oenothera</i> spp.)	*Goosegrass	(<i>Eleusine indica</i>)
Fiddleneck†	(<i>Amsinckia intermedia</i>)	Green Foxtail	(<i>Setaria viridis</i>)
Fireweed†	(<i>Epilobium angustifolium</i>)	Ripgut Bromegrass†	(<i>Bromus catharticus</i>)
Florida Pusley	(<i>Richardia scabia</i>)	Wild Oats†	(<i>Avena fatua</i>)
*Galinsoga	(<i>Galinsoga</i> spp.)		
Golden Ragwort	(<i>Senecio aureus</i>)		
Lambsquarters	(<i>Chenopodium album</i>)		
*Liverwort	(<i>Marchantia</i> spp.)		
Oxalis	(<i>Oxalis</i> spp.)		
Pennsylvania Smartweed	(<i>Polygonum pensylvanicum</i>)		
Petty Spurge	(<i>Euphorbia peplus</i>)		
*Prostrate Spurge	(<i>Euphorbia upine</i>)		
Redroot Pigweed	(<i>Amaranthus retroflexus</i>)		
Shepherdspurse†	(<i>Capsella bursa-pastoris</i>)		
Speedwell	(<i>Veronica</i> spp.)		
Sow Thistle†	(<i>Sonchus oleraceus</i>)		
Spotted Catsear	(<i>Hypochaeris radicata</i>)		
*Swinecress	(<i>Coronopus didymus</i>)		
Yellow Woodsorrel	(<i>Oxalis stricta</i>)		

* Use 2.8 fl oz per 1000 sq. ft.

† Not currently registered in California for use on Bristly Oxtongue, Cheeseweed, Fiddleneck, Fireweed, Shepherdspurse, Sow Thistle, Annual Bluegrass, Annual Sedge, Ripgut Bromegrass, and Wild Oats

PLANT TOLERANCE: RONSTAR® FLO can be used as directed spray to the soil surface on a wide variety of container and field grown woody ornamental shrubs, trees, conifers, and herbaceous plants in nurseries. RONSTAR® FLO may be used as an over the top spray in a minimum of 1 gallon per 1000 sq. ft., at the recommended rates, on the following ornamental species only:

Arborvitae, Japanese Barberry, Boxwood, Baby's Breath, Eastern Red Cedar, Cranberry, Hinoki Cypress, Nootka Spound Cypress, Sawara Cypress, Evergreen Euonymus, Douglas Fir*, Fraser Fir*, Grand Fir*, Noble Fir*, Gladiolas, Canadian Hemlock*, Chinese Holly, Japanese Holly, Kurogane Holly, Purple Hopseed Bush, Andorra Juniper, Blue Rug Juniper, Common Juniper, Creeping Juniper, Oleander, Ophiopogon, Eastern White Pine, Mugho Pine, Scotch Pine, Raphiolepis, Blue Spruce*, Statice

Local conditions may affect the use of this chemical. Consult State Agricultural Experiment Station or Extension Service weed specialists for specific recommendations for local weed problems and for information on possible lower dosages.

*Not currently registered for use on Fir, Hemlock, and Blue Spruce in California.

LANDSCAPE PLANTINGS: COMMERCIAL, ROADSIDE, & INDUSTRIAL SITES. Apply RONSTAR® FLO prior to weed seed germination as an over-the-top spray only on labeled ornamentals.

AMOUNT TO USE: Apply RONSTAR® FLO broadcast, in a minimum of 1 gallon per 1000 sq. ft., to established ornamentals at 1.85 fl oz per 1000 sq. ft. Remove existing weed growth before application. Do not apply within 60 days of transplanting. Do not apply with adjuvants or drift control agents. Sprinkle irrigate within 2 hours after application, otherwise crop injury may result.

CROP TOLERANCE: RONSTAR® FLO may be used as an over-the-top spray on the following ornamental species only: Large Leaf Ice Plant, English Ivy, Algerian Ivy, African Trailing Daisy, Common Periwinkle, Bigleaf Periwinkle.

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TANK-MIX COMBINATIONS: Ornamental Plantings and Noncropland areas:

Tank-mix combinations of RONSTAR® FLO plus a non-selective herbicide such as FINALE® are recommended to control existing undesirable vegetation. Applied as a directed spray, RONSTAR® FLO plus a non-selective herbicide such as FINALE® will provide pre and postemergence control of susceptible species listed on the respective labels of the two herbicides.

A compatibility test must be conducted with any potential tank mix partner with Ronstar® FLO Herbicide. Using a clear glass quart jar, conduct the test as described below:

1. Fill the jar three-quarters full with water
2. Add the appropriate amount of herbicide in the following order: (a) dry flowable, (b) wettable powder, (c) aqueous suspensions, (d) flowables, (e) liquids and (f) solutions and emulsifiable or liquid concentrates. Shake or gently stir jar after each addition to thoroughly mix.
3. After adding all ingredients, let the mixture stand for 15 minutes and then look for separation, large flakes, precipitates, gels, and heavy oily film on the jar or other signs of incompatibility.
4. If the compatibility test shows signs of incompatibility, do not tank mix the product tested with Ronstar® FLO Herbicide.

MIXING INSTRUCTIONS: RONSTAR® FLO should be added to the tank and agitated prior to introduction of a non-selective herbicide such as FINALE®. Please refer to the non-selective herbicide label for information on surfactant and spray volume to use. Only mix the amount of spray needed for immediate application needs as settling can occur if spray mixture is allowed to sit over an extended period of time.

PRECAUTION: Non-selective herbicides such as FINALE® are not recommended as an over-the-top spray in ornamentals. Extreme care must be exercised to avoid contact of spray containing a non-selective herbicide with foliage, stems, green bark, or bare roots of desirable turfgrasses, trees, shrubs, or other desirable vegetation since severe damage or destruction may result. If spraying areas adjacent to desirable plants with a non-selective herbicide, use a shield made of cardboard, sheet metal, or plyboard while spraying to help prevent spray from contacting foliage of desirable plants.

BROADCAST APPLICATION RATES:

RONSTAR® FLO/FINALE®

Existing Annual and Broadleaf Weeds	RONSTAR® FLO Fluid Ounces Per 1000 sq. ft.	FINALE® Fluid Ounces Per 1000 sq. ft.
Less Than 6" Tall	1.85-2.8	2.2
Greater Than 6" Tall	1.85-2.8	2.9
Existing Perennial	1.85-2.8	2.9 - 4.4

These rates are intended as general information. Consult rate sections in individual product labels for detailed information on specific weed species controlled and rates of application.

The maximum single application rate is 3.7 fl. oz. per 1000 sq. ft. and no more than 2 applications per year.

The maximum application rate allowed per year is 5.55 fl. oz of product per 1000 sq. ft. per year (1.89 gallons of product per acre per year) (equivalent to 6 pounds ai/A/year), except in areas where there is heavy weed infestation. In areas of heavy weed infestation, the maximum application rate is 7.4 fl. oz of product per 1000 sq. ft. per year (2.52 gallons of product per acre per year) (equivalent to 8 pounds ai/A/year). For best results, water-in product as soon as practical after application.

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IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

NET CONTENTS:

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Produced for



Bayer Environmental Science

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