



TURF & ORNAMENTAL

# pH Reducer

- No mixing or agitation and will not settle out of solution
- Ideal for any type of fertigation systems for application ease
- Compatible with other technical chemicals, including fungicides and insecticides

Net Contents: 2.5 Gallon (9.46 Liter)

Net Weight: 23.75 lbs (10.77 kg)

# pH Reducer

F002873

## Guaranteed Analysis:

CONTAINS NON-PLANT FOOD INGREDIENTS

33% .....Citric Acid

## Product Specifications:

pH . . . . . 2

Weight per gallon at 68°F . . . . . 9.5 lbs.

## Product Description:

pH Reducer is a safe alternative to phosphoric and sulfuric acids for lowering soil and soilless media pH into a more acidic range. Citric Acid solution is manufactured from food grade citric acid and can be used to neutralize or acidify soils & improve micronutrient uptake.

## Equipment & Tank Cleaning

Mixing: pH Reducer is acidic. It must first be diluted with water prior to mixing with other nutrients or technical materials. pH reducer should not be added as concentrate to highly alkaline materials. Hard and alkaline water sources will leave residues and mineral build up on tanks, lines and irrigation heads. Alleviate this by flushing tanks and lines with a solution of 1 gallon citric acid to 100 gallons of water. Follow by flushing with water to rinse out lines, to clean out drip irrigation systems.

## Application Recommendations:

pH Reducer needs no mixing or agitation and will not settle out of solution. When using a variable proportioner, it can be siphoned directly out of its original container. Growth Products solutions are ideal for any type of

Condition of Sale and Warranty: Douglas Plant Health, Inc. warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. Handling, storage and use of the product by Buyer or User are beyond the control of Douglas Plant Health and Seller. Risks such as crop injury or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pests, drift to other crops or property, or failure to follow label directions will be assumed by Buyer or User. IN NO CASE WILL DOUGLAS PLANT HEALTH, INC OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT

Information regarding the contents and levels of metals in this product is available on the internet at <http://www.aapfco.org/metals.html>

fertilization systems.

Use pH Reducer with all types of: Bedding Plants, Perennials, Cut Flowers, Plugs, Woody Ornamentals, Nursery Crops, Trees, Foliage Plants and Container Plants.

## Adjusting Media pH:

Begin by mixing 4 fl oz pH Reducer with one gallon water (100 PPM rate) and moisten a sample of growing media. Let stand 24 hours and take pH reading. Adjust rate of pH Reducer accordingly. Do not exceed 6 fl oz pH Reducer (150 PPM) per gallon per irrigation. Instead adjust media pH, with 2-4 oz pH reducer over several waterings.

## Precautions:

Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye

FIRST AID	
IF SWALLOWED:	Rinse mouth. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a poison center or doctor/physician if you feel unwell.
IF IN EYES:	Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
IF INHALED:	Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician/poison center if individual's condition declines or if symptoms persist.
You may also contact 1-352-323-3500 day or night for emergency treatment information. If medical advice is needed, have product container or label at hand (P101). Keep out of reach of children (P102). Read label before use (P103).	
STORAGE: Keep container tightly closed. May be stored in unheated area, but keep from freezing. Store in areas inaccessible to children and pets.	
DISPOSAL: Dispose of contents/container in accordance with local/regional/national/international regulations. Do not reuse container.	

The following precautionary statements and pictograms are based on the Globally Harmonized System of classification and labeling of chemicals (GHS) and are mandated by the Occupational Safety and Health Administration (OSHA).



## Warning

H320 Causes Serious Eye Irritation

## Douglas Plant Health

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Application Rates		
Application	Rate	Frequency / Notes
Warm & Cool Season Turf Applications	2-6 fl oz in a minimum of 2 gal water per 1,000 ft <sup>2</sup> (60-177 ml per 100 m <sup>2</sup> )	Apply Monthly. Ideal pH Range 6 - 6.5
Trees & Ornamentals	Soil Drench: 1 quart per 100 gal. of tank mix (1 L per 400 L water)	Repeat the application every 30 days or as needed. Ideal pH Range 5 - 6.5
Greenhouse Growing Media	100 - 150 ppm rate Initial Application: Mix 4 - 6 fl oz per 1 gal. water (118 - 177 ml per 4 L water)	If pH is not sufficiently lowered, continue to adjust pH over several waterings, at a rate of 2-4 fl oz per gal water. (60 - 118 ml per 4L water)
Hand Watering	Mix ½ - ¾ teaspoon pH Reducer per gallon water	Saturate soil with solution.

pH Reducer needed to reduce each 50 PPM present			
CaCo <sub>3</sub> PPM in water	Ounces per gallon stock tank at injector ratio at 1:100 to reduce CaCo <sub>3</sub> to 100 PPM	Ounces per 1000 gallons to reduce PPM CaCo <sub>3</sub> to 100 PPM	Ounces per gallon stock tank at injector ratio at 1:100 to reduce CaCo <sub>3</sub> to 150 PPM
300	6	60	4.5
250	4.5	45	3
200	3	30	1.5
150	1.5	15	0.75