DOUGLAS
PLANT HEALTH

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:**

Soil Amending Ingredients

Active Ingredient:

Citric acid . . . . . 33%

Total Other Inert Ingredients . . . . . 67%

**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 fertigation 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 adust 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.<br>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**
1550 E. Old 210 Highway
Liberty, MO 64068
(800) 648-7626
www.DouglasPlantHealth.com


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

| 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 $ft^2$ (60-177 ml per 100 $m^2$) | 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 | | | |
|---|---|---|---|
| CaCo3 PPM in water | Ounces per gallon stock tank at injector ratio at 1:100 to reduce CaCo3 to 100 PPM | Ounces per 1000 gallons to reduce PPM CaCo3 to 100 PPM | Ounces per gallon stock tank at injector ratio at 1:100 to reduce CaCo3 to 150 PPM |
| 300 | 6 | 60 | 4.5 |
| 250 | 4.5 | 45 | 3 |
| 200 | 3 | 30 | 1.5 |
| 150 | 1.5 | 15 | 0.75 |