1. Product Identification and Company Information

Product Name : VIAGROW - pH Down Dry
Chemical name : Crystallised Acid
Product use : To lower pH in hydroponics nutrients mixture and plant fertilizers
Supplier **:** Viagrow, 3645 market place blvd suite 130-437
East Point, GA 30344, USA, Tel (+1) 404-349-6957

2. Hazards Identification

EMERGENCY OVERVIEW

Mild corrosive weak acid

Eye: Severe burn and irritation

Skin: Severe burn and irritation

Ingestion: Severe digestive track irritation and burns.

Inhalation: irritation and burns also.

Chronic: Same as acute effect

Carcinogenicity : Not listed as in OSHA. ARC, and NTP,

3. Composition and Ingredient information

Though the ingredients are trade secrets the main ingredients are Citric acid crystals.

4. First Aid measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid with physician also with ophthalmologist. Gently lift eyelids and flush continuously with water for 15 minutes.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Flush skin with plenty of soap and water.

Ingestion: Never give anything by mouth to an unconscious person. Rinse out the mouth, do not induce vomiting to a unconscious person, and seek immediate medical assistance quickly.

Inhalation: Remove exposed person to fresh air and support breathing, if necessary. Give oxygen. Consult a physician immediately.

Post first aid action : Get a community medical aid.

5. Fire-fighting measures

Special information: Wear self- contained breathing apparatus (SCBA) with full face covered because fire may produce toxic decomposed gas reacted with this product.
Flammability Classification: Not known
Flash Point: Combustible at very high temperature
Auto-ignition Temperature: Not known
LEL: Not known
Burning Rate: Not known
Extinguishing Media: Use dry chemical, water spray , fog, or foam.
Unusual Fire or Explosion Hazards: Container may explode in heat of fire.
Hazardous Combustion Products: Carbon di oxide and nitrogen oxides.

6. Accidental release measures

Spill/Leak Procedures: Use large amount of water to dilute the contamination. Use personal protective equipment and cover with dry lime or soda ash for neutralization.
Regulatory Requirements: Follow OSHA regulations (29 CFR 1910.120)

6. Storage and Handling

Storage: Use only in well-ventilated areas. Avoid contact with skin and eyes, inhalation of aerosols and ingestion. Wear an appropriate NIOSH-approved respirator for protection if it is mixed in air.
Handling: Avoid ingestion, skin contact, eye contact, and inhalation

8. Exposure control and personal protection:

Airborne Exposure Limits: Limit not yet standardised
Ventilation: General ventilation with good area.
Administrative Controls: Avoid direct contact
Respiratory Protection: If this product is used as directed, respiratory protection is not required. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.120) and, if necessary, wear a MSHA/ NIOSH-approved respirator. If respirators are used, OSHA requires a written respiratory protection program that includes, at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
Eye Protection: when using pH Test Indicator, protective eye wear or goggles should be worn per OSHA regulations (29 CFR 1910.120). Contact lenses pose a special hazard. Soft lenses may absorb irritants, and all contact lenses concentrate irritants. Particles may adhere to contact lenses and cause corneal damage.
Protective Clothing: Wear impervious protective clothing when the possibility of skin or clothing contamination may exist. Wear neoprene or rubber gloves when directly handling the product.
Contaminated Equipment: Remove this material from shoes and equipment. Launder contaminated clothing before wearing.
Comments: Never eat, drink, or smoke in work areas. wash hands before eat anything. Follow personnel hygienic practices

9. Physical and chemical properties

PHysical State: white color crystals
Density: Not applicable
pH: 2.2
Appearance and Odor: odor less
Odor Threshold Range: Odorless
Vapor Pressure: Unknown

Water Solubility: Soluble in water
Boiling Point: Unknown
Melting point: Unknown
Other Solubilities: Unknown

10. Stability and reactivity
Stability: Stable under room temperature and normal storage.
Chemical Incompatibilities: Strong oxidizing agents, strong bases, potassium, nitrogen trichloride, and sodium hypochlorite
Conditions to Avoid: Do not mix with ammonia or bleach.

Hazardous Decomposition Products: Hazardous polymerization is not recorded

11.Toxicological information
citric acid is of low acute toxicity. The repeated dose toxicity for rats is 1200 mg/kg/d

12. Ecological information
Eco toxicity: Not known
Environmental status : Not known. Physical removal is possible by natural rain.

13. Disposal considerations
Waste Disposal: Dispose waste on accordance with the state environmental agency. Except recycling use, otherwise consider as hazardous waste.

14. Transport information
UN No.: Not Applicable
UN Clause .: Not Applicable
UN Package Group .; Not Applicable
IATA. ; Not regulated under dangerous goods as per regulation.
ICAU. ; Not regulated under dangerous goods as per regulation.
DOT classification Not regulated
IMDG Class Not regulated
DATA-DGR Class Not regulated

15. Regulatory information
EPA Regulations: not regulated

16. Other information
This pH down DRY to be used in hydroponics plants grow system to adjust the pH in to lower levels which is useful to optimum pH levels to grow plants in hydroponics, information assembled for this Material Safety Data Sheet is for the use of this product as intended by the manufacturer. Users should take all precautions recommended herein while working with this product.
Viagrow provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in using this product.

1. Product Identification and Company Information

Product Name : VIAGROW - pH UP Dry
Chemical name :Potassium Carbonate
Product use : To lower pH in hydroponics nutrients mixture and plant fertilizers
Supplier **:** Viagrow, 3645 market place blvd suite 130-437
East Point, GA 30344, USA, Tel (+1) 404-349-6957

2. Hazards Identification

EMERGENCY OVERVIEW

Mild corrosive weak acid

Eye: Severe burn and irritation

Skin: Severe burn and irritation

Ingestion: Severe digestive track irritation and burns.

Inhalation: irritation and burns also.

Chronic: Same as acute effect

Carcinogenicity : Not listed as in OSHA. ARC, and NTP,

3. Composition and Ingredient information

Potassium carbonate CAS NO. 584-08-7

4. First Aid measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid with physician also with ophthalmologist. Gently lift eyelids and flush continuously with water for 15 minutes.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Flush skin with plenty of soap and water.
Ingestion: Never give anything by mouth to an unconscious person. Rinse out the mouth, do not induce vomiting to a unconscious person, and seek immediate medical assistance quickly.
Inhalation: Remove exposed person to fresh air and support breathing, if necessary. Give oxygen. Consult a physician immediately.
Protection of first-aiders : It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Notes to physician: No specific treatment , but treat with symptomatically. If larger quantities ingested call poison specialist.

5. Fire-fighting measures

Special information: Wear self- contained breathing apparatus (SCBA) with full face covered because fire may produce toxic decomposed gas reacted with this product.
Flammability Classification: No specific fire or explosion hazard.
Flash Point: Combustible at very high temperature
Auto-ignition Temperature: Not known
LEL: Not known
Burning Rate: Not known
Extinguishing Media: Use extinguisher that is suitable for surrounding fire.
Unusual Fire or Explosion Hazards: No specific fire or explosion hazard.
Hazardous Combustion Products: Carbon di oxide andcarbon monoxide

6. Accidental release measures

Spill/Leak Procedures: Try to remove containers and vaccum clean the spill with stored spill collecting containers with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.Avoid entry into sewers, water courses, confined areas. Avoid dust generation. Do not dry sweep.
Regulatory Requirements: Follow OSHA regulations (29 CFR 1910.120)

6. Storage and Handling

Storage: Use only in well-ventilated areas. Avoid contact with skin and eyes, inhalation of aerosols and ingestion. Wear an appropriate NIOSH-approved respirator for protection if it is mixed in air.
Handling: Avoid ingestion, skin contact, eye contact, and inhalation. Handling only in adequate ventilation.

8. Exposure control and personal protection:

Airborne Exposure Limits: Limit not yet standardised
Ventilation: General ventilation with good area.
Administrative Controls: Avoid direct contact
Respiratory Protection: Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.1200) and, if necessary, wear a MSHA/ NIOSH-approved respirator. If respirators are used, OSHA requires a written respiratory protection program that includes, at least: medical certification, training, fit testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
Eye Protection: when using pH Test Indicator, protective eye wear or goggles should be worn per OSHA regulations (29 CFR 1910.1200). Contact lenses pose a special hazard. Soft lenses may absorb irritants, and all contact lenses concentrate irritants. Particles may adhere to contact lenses and cause corneal damage.
Protective Clothing: Wear impervious protective clothing when the possibility of skin or clothing contamination may exist. Wear neoprene or rubber gloves when directly handling the product.
Contaminated Equipment: Remove this material from shoes and equipment. Launder contaminated clothing before wearing.
Comments: Never eat, drink, or smoke in work areas. wash hands before eat anything. Follow personnel hygienic practices

9. Physical and chemical properties

PHysical State: white color free flowing powder
Density: 1201 - 1330 g/L (granular); 560 - 625 g/L (ground) @ 20 °C
pH: Base pH
Appearance and Odor: odor less white color granules
Odor Threshold Range: Odorless
Vapor Pressure: Unknown

Water Solubility: 100% Soluble in water
Boiling Point: Unknown
Melting point: Unknown
Other Solubilities: Unknown

10. Stability and reactivity
Stability: Stable under room temperature and normal storage.
Chemical Incompatibilities: Acids. Lime. Prolonged contact with aluminum, brass, bronze, copper, lead, tin, zinc or other alkali sensitive metals or alloys. Keep away from lime to avoid forming KOH a corrosive chemical.
Conditions to Avoid: High temperature to avoid the melt down of this product.
Hazardous Decomposition Products: Hazardous polymerization is not recorded

11.Toxicological information
Rat : LD50 Oral: 1,870 mg/kg, Rabbit : LD50 Dermal: >2000 mg/kg

12. Ecological information
Eco toxicity data :
Fish Toxicity:
LC50 Bluegill sunfish: 230 mg/L (96 hour), Rainbow trout: 68 mg/L (96 hour)
Invertebrate Toxicity:
EC50 Daphnia magna: 430 mg/L (48 hour) - hard water, Daphnia pulex: 200 mg/L (48 hour) - soft water
Environmental status : Not known. Physical removal is possible by natural rain.

13. Disposal considerations
Waste Disposal: Dispose waste on accordance with the state environmental agency. Except recycling use, otherwise consider as hazardous waste.

14. Transport information
UN No.: Not Applicable
UN Clause .: Not Applicable
UN Package Group .; Not Applicable
IATA. ; Not regulated under dangerous goods as per regulation.
ICAU. ; Not regulated under dangerous goods as per regulation.
DOT classification Not regulated
IMDG Class Not regulated
DATA-DGR Class Not regulated

15. Regulatory information
EPA Regulations: not regulated

16. Other information
This pH UP DRY to be used in hydroponics plants grow system to adjust the pH in to Higher levels which is useful to optimum pH levels to grow plants in hydroponics, information assembled for this Material Safety Data Sheet is for the use of this product as intended by the manufacturer. Users should take all precautions recommended herein while working with this product.
Viagrow provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in using this product.

1. Product Identification and Company Information

Product Name : Viagrow pH test kit
Chemical name : Ethyl alcohol with aqueous mixture of pH Indicators.
Product use : To test pH in Hydroponics growing medium
Supplier : Viagrow, 3645 market place blvd suite 130-437
East Point, GA 30344, USA, Tel (+1) 404-349-6957

2. Hazards Identification

EMERGENCY OVERVIEW

This product contain around 6% of ETHYL ALCOHOL. Flammable liquid and vapor. May cause central nervous system depression. Causes severe eye irritation. Causes respiratory tract irritation. Causes moderate skin irritation.

Eye: Causes severe eye irritation. May cause painful sensitization to light. May cause chemical conjunctivitis and corneal damage.

Skin: Causes moderate skin irritation. May cause cyanosis of the extremities.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.
May cause systemic toxicity with acidosis. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, and coma.

Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation.

Chronic: May cause reproductive and fetal effects.

3. Composition and Ingredient information

6% of the ingredient contain ethyl alcohol along with demineralized water. Other ingredients are mixed of particular ration of pH indicators which are kept as trade secret to mention the names. This pH indicators to be used in hydroponics plants grow system to find the pH levels which is useful to choose the optimum pH levels to grow plants in hydroponics.

4. First Aid measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. Gently lift eyelids and flush continuously with water.

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Flush skin with plenty of soap and water.

Ingestion: Do Induce vomiting and contact physician immediately. Never giveanything by mouth to an unconscious person. Get medical aid at urgent.

Inhalation: Remove exposed person to fresh air and support breathing, if necessary. Give oxygen. Consult a physician immediately.

5. Fire-fighting measures

Special information: Wear self- contained breathing apparatus (SCBA) with full face covered because fire may produce toxic decomposed gas reacted with this product.
Flammability Classification: slightly combustible but not classified for pH test kit.
Flash Point: Not known
Auto-ignition Temperature: Not known
LEL: Not known
Burning Rate: Not known
Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam.
Unusual Fire or Explosion Hazards: Container may explode in heat of fire.
Hazardous Combustion Products: Can decompose explosively in a fire.

6. Accidental release measures

Spill/Leak Procedures: Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors
Regulatory Requirements: Avoid infiltration of the undiluted product into drains, surface water, groundwater, and soil.

6. Storage and Handling

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.
Handling: Avoid ingestion, skin contact, eye contact, and inhalation

8. Exposure control and personal protection:

Airborne Exposure Limits: Limit not yet standardised
Ventilation: General ventilation with good area.
Administrative Controls: Avoid direct contact
Respiratory Protection: If this product is used as directed, respiratory protection is not required. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/ NIOSH-approved respirator. If respirators are used, OSHA requires a written respiratory protection program that includes, at least: medical certification, training, fit testing,periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.
Eye Protection: when using pH Test Indicator, protective eye wear or goggles should be worn per OSHA regulations (29 CFR 1910.134). Contact lenses pose a special hazard. Soft lenses may absorb irritants, and all contact lenses concentrate irritants. Particles may adhere to contact lenses and cause corneal damage.
Protective Clothing: Wear impervious protective clothing when the possibility of skin or clothing contamination may exist. Wear neoprene or rubber gloves when directly handling the product.
Contaminated Equipment: Remove this material from shoes and equipment. Launder contaminated clothing before wearing.
Comments: Never eat, drink, or smoke in work areas. wash hands before eat anything. Follow personnel hygienic practices

9. Physical and chemical properties
PHysical State: Aqueous dark greenish to reddish color solution
Density: 0.988
pH: 6.5 - 7.0
Appearance and Odor: dark green to red color with a slight alcohol odor.
Odor Threshold Range: Unknown
Vapor Pressure: Unknown
Water Solubility: Soluble in water
Boiling Point: Unknown
Melting point: Unknown
Other Solubilities: Unknown

10. Stability and reactivity
Stability: Stable under room temperature and normal storage.
Chemical Incompatibilities: pH Indicator may react with strong oxidizing agents.
Conditions to Avoid: Mixture with oxidising agents and high temperature
Hazardous Decomposition Products: At fire or extreme temperature decomposed gases may evolve.

11.Toxicological information
For Ethyl Alcohol Oral, mouse: LD50 = 3450 mg/kg; Oral, rabbit: LD50 = 6300 mg/kg;
Oral, rat: LD50 = 9000 mg/kg; Oral, rat: LD50 = 7060 mg/kg;

12. Ecological information
Eco toxicity: Slight toxic to aquatic inhabitants in higher concentration
Environmental status : Quickly degrades in Soil and Water environment

13. Disposal considerations
Waste Disposal: Dispose waste on accordance with the environmental agency. Except recycling use, otherwise consider as hazardous waste.

14. Transport information
UN No.: Not Applicable
UN Clause .: Not Applicable
UN Package Group .; Not Applicable
IATA. ; Not regulated under dangerous goods as per regulation.
ICAU. ; Not regulated under dangerous goods as per regulation.
DOT classification Not regulated
IMDG Class Not regulated
DATA-DGR Class Not regulated

15. Regulatory information
EPA Regulations: not regulated

16. Other information
This pH indicators to be used in hydroponics plants grow system to find the pH levels which is useful to choose the optimum pH levels to grow plants in hydroponics, information assembled for this Material Safety Data Sheet is for the use of thisproduct as intended by the manufacturer. Users should take all precautions recommended herein whileworking with this product.
Viagrow provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in using this product.