

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Ethephon E-AG 2 Plant Growth

Regulator

DESCRIPTION: A liquid plant growth regulator.

COMPANY IDENTIFICATION:

Etigra 501 Cascade Pointe Lane Suite 103 Cary, NC 27513 www.etigra.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Ethephon Chemical Name (2-Chloroethyl) phosphonic acid Formula C₂H₆ClO₃P CAS # 16672-87-0 Composition 21.7%

3. HAZARD IDENTIFICATION

HAZARDS TO HUMANS AND DOMESTIC ANIMALS: CORROSIVE. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing.

Liquid or vapors coming in contact with the eyes may cause irritation, burns and corneal opacity. Causes redness and swelling of the skin. May cause burns to the mouth and esophagus, chest pain and abdominal pain if ingested. Mists may cause upper respiratory tract irritation, coughing and sore throat if inhaled. Prolonged contact can cause chronic bronchitis.

Medical Conditions Aggravated by Exposure: Inhalation may aggravate exiting chronic respiratory problems such as asthma, emphysema or bronchitis. Skin contact may aggravate existing skin disease.

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 disposing of equipment wash water.

4. FIRST AID

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF IN EYES: Hold eye 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 eye. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: 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. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Treat symptomatically. Consideration should be given to the possibility that over-exposure to materials other than this product may have occurred. No specific antidote is available. Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Flashpoint: N/A

Flammable Limits (LFL-UFL): N/A

Means of Extinction: Not combustible. Use extinguishing method appropriate for surrounding fire.

Fire Fighting Instructions: Evacuate area and contain contaminated firefighting water. Do not allow runoff to enter drains or waterways. Thoroughly decontaminate equipment after use.

Firefighting Equipment: Wear full protective clothing (bunker gear) and NIOSH/MSHA approved self-contained breathing apparatus with full-facepiece operated in the pressure/demand mode.

Hazardous Combustion Products: In fire can produce corrosive and toxic fumes.

NFPA Hazard Codes: Health-3 / Fire-1 / Reactivity-1

Manufactured for: Etigra 501 Cascade Pointe Lane, Suite 103 Cary, NC 27513 www.etigra.com

REV 0307

Etigra

Emergency Phone: Chemtrec 800-424-9300

Effective Date: March 06, 2007

EPA Reg. No. 79676-60



6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately, observing the precautions in Section 8 of this MSDS. Isolate the hazard area and keep unnecessary and unprotected personnel from entering. Prevent material from contaminating soil or from entering sewage and drainage systems and bodies of water.

Pump any free liquid into an appropriate closed container. When not possible to recover, dike spillage and pick up with suitable absorbent material. If spilled on the ground, the affected area should be removed to a depth of 1-2 inches. Place absorbent material and removed soil in a container for disposal.

7. HANDLING AND STORAGE

Do not allow to come into contact with skin, eyes and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Store in a tightly closed container in a cool, dry place. If container is broken or contents have spilled, follow all precautions provided on this label and clean up immediately. Before cleaning up, put on full-length trousers, long-sleeved shirt, protective gloves, and goggles or face shield. Soak up spill with absorbent media such as sand, earth or other suitable material and dispose of waste at an approved waste disposal facility. Do not allow to contaminate food or feed and segregate from textiles and other similar materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

Protective Clothing: Wear coveralls over short-sleeved shirt and short pants, chemical-resistant footwear plus socks, protective eyewear and chemical resistant gloves made of any waterproof material such as nitrile, butyl, neoprene or barrier laminate, and chemical-resistant headgear for overhead exposure. When cleaning equipment, mixing or loading wear a chemical-resistant apron.

General: Wash thoroughly with soap and water after handling. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Discard clothing and other absorbent materials that have been heavily contaminated with this product; do not reuse them. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to pale yellow liquid

Odor: Odorless pH: 1.98

Specific Gravity: 1.106 g/ml (25°C) **Solubility in Water**: Soluble

Decomposition Temperature: 170°C

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Florated temperatures are

CONDITIONS TO AVOID: Elevated temperatures and extreme humidity.

CHEMICAL STABILITY: Stable under normal use and transportation situations.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition will create hydrogen chloride and oxides of carbon and nitrogen.

INCOMPATIBILITY WITH OTHER MATERIALS: Zinc, iron, aluminum, bases, strong oxidizing agents.

POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

The following information is for the active ingredient (Ethephon):

ACUTE ORAL TOXICITY

Oral LD_{50} (rat): > 5,000 mg/kg

ACUTE DERMAL TOXICITYDermal LD₅₀ (rat): 2,000 mg/kg

ACUTE INHALATION TOXICITY Inhalation LC₅₀ (rat): > 4.5 mg/l

EYE IRRITANT

Rabbit - Corrosive

SKIN IRRITATION

Rabbit - Moderately irritating

SENSITIZATION

Guinea Pig - Non-sensitizing

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

CARCINOGENICITY:

ACGIH: Not listed NOT listed NTP: Not listed Not listed Not listed Not listed

MUTAGENIC DATE: Not genotoxic or mutagenic.

REPRODUCTIVE DATA: No evidence of developmental effects as doses that are not maternally toxic. Caused decreased pup body weight at the highest dose in rats. No effects were observed on fertility, gestation, mating, organ weights or histopathology.

12. ECOLOGICAL INFORMATION

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Non-Hazardous to Bees.

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by disposal.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Rinse thoroughly at least three times and then offer for recycling or dispose of in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

Containers < 5.0L (1.3 gallons) Not Shipped by Air: Not regulated by DOT

Containers > 5.0L (1.3 gallons) or when Shipped by Air:

DOT PROPER SHIPPING NAME: UN3265, Corrosive liquid, acidic, organic, n.o.s. (Ethephon), 8, PG III

DOT HAZARD CLASS OR DIVISION: 8

DOT UN/NA NUMBER: UN3265

DOT PACKING GROUP: III REPORTABLE QUANTITY: N/A

DOT EMERGENCY RESPONSE GUIDE: 153

MARINE POLLUTANT: Not Listed

15. REGULATORY INFORMATION

FIFRA -

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

SARA Title III - Section 302 Extremely Hazardous Substances

Not Listed

SARA Title III – Section 311/312 Hazard Categories Immediate

SARA Title III – Section 312 Threshold Planning Quantity None

SARA Title III - Section 313 Reportable Ingredients None

CERCLA -

Not Listed

CALIFORNIA PROP 65 STATUS -

This product does not contain any substances known to the State of California to cause cancer or reproductive harm.

16. OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

DISCLAIMER:

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