

# FLOREL PLANT GROWTH REGULATOR MATERIAL SAFETY DATA SHEET

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## Manufacturer's Name & Address

Southern Agricultural Insecticides, Inc.  
P.O. Box 218, Palmetto, Fla. 33420

Phone: 1-813-722-3285  
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KEY NFPA	NFPA
4 - EXTREME	HEALTH 1
3 - HIGH	FIRE 0
2 - MODERATE	REACTIVITY 0
1 - SLIGHT	
0 - MINIMAL	

## I NOMENCLATURE

**Product Name:** FLOREL PLANT GROWTH REGULATOR  
**Chemical Name:** (2-CHLOROETHYL) PHOSPHONIC ACID  
**Synonyms:** ETHEPHON  
**Chemical Family:** PHOSPHONIC ACID

EPA Reg. No.264-263AA-829  
CAS No. 16672-87-0

## II INGREDIENTS

Ethephon ((2-Chloroethyl) Phosphonic Acid) 3.9% CAS No. 16672-87-0

## III PHYSICAL PROPERTIES

**Boiling Point:** not known  
**Vapor Pressure:** (mmHg) (solvent) 0.0000605 @ 100°F Reid  
**Vapor Density:** (air=1)(solvent) not known  
**Appearance/Odor:** Colorless, Clear liquid; Characteristic Odor  
**Freezing Point C° (F°):** -1 (30)  
**Specific Gravity:** 1.016 @ 20 degrees C  
**Solubility In Water:** Soluble

## IV FIRE AND EXPLOSION DATA

**Flash Point:** Noncombustible  
**Autoignition Temp.:** none  
**Flammability limits in air % by volume:** none  
**Extinguishing Media:** Not combustible. Use appropriate extinguishing media for material that is supplying fuel.  
**Special Fire Fighting Procedures:** Use positive self contained breathing apparatus. Wear protective clothing. Dike area to prevent runoff and contamination of water sources.  
**Unusual Fire & Explosion Hazards:** Thermal decomposition products may include Hydrogen Chloride.

## V HEALTH HAZARD DATA

**Toxicology Data:**  
**Dermal LD50 (rats):** >2,000 mg/kg body weight  
**Skin effects (rabbits):** not irritating  
**Oral LD50 (rats):** >20,000 mg/kg body weight  
**Inhalation LC50 (rats):** no information available  
**Eye effects (rabbits):** not irritating  
**Carcinogenicity, Teratogenicity, Mutagenicity:**

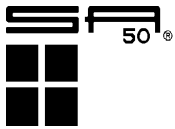
The active ingredient in this product was not mutagenic in "IN VITRO" or in "IN VIVO" studies. In addition, the active ingredient has been shown not to be teratogenic or carcinogenic in animal studies. This product does not contain any chemicals listed as carcinogens by IARC, NTP or OSHA.

## VI FIRST AID

**First Aid for EYE Exposure:** Irrigate with flowing water immediately and continuously for 15 minutes. Water flush should get under eyelids. See a physician.  
**First Aid for SKIN Exposure:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Call a physician if irritation persists. Wash clothing before reuse.  
**First Aid for INHALATION:** Remove to fresh air. If not breathing give mouth to mouth resuscitation. If breathing is difficult give oxygen. Call a physician.  
**First Aid if SWALLOWED:** If patient is conscious and alert, give 2-3 glasses of water to drink. Do not induce vomiting. Get medical attention.

**Note to physician:** No specific antidote is available. Treat symptomatically. consideration should be given to the possibility that overexposure to materials other than this product may have occurred. The primary toxicity of this product is due to its irritant properties on mucosal surfaces.

**SYMPTOMS of OVEREXPOSURE:** This product may cause mild to moderate peripheral cholinesterase inhibition, depending on the degree and duration of exposure. CNS cholinesterase depression has not been observed in any of the animal studies. The usefulness of conventional treatment for cholinesterase inhibiting agents, I.E. Atropinization, has not been established for this product.



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## VII REACTIVITY

**Stability:** Stable at ambient temperatures.

**Conditions to Avoid:** Temperatures above 170 degrees C (338 F) and pH below 3

**Materials to Avoid:** Alkali media and strong acidic conditions. Corrosive to metals such as iron, aluminum & copper.

**Hazardous Decomposition Products:** Decomposition products may be hazardous. These may include hydrogen chloride. Reaction with bases causes evolution of ethylene gas.

**Hazardous Polymerization:** Will not occur.

## VIII SPILL OR LEAK PROTECTION

**Steps To Be Taken If Spilled:** Confine spills. Absorb spills with dry material such as sand, sawdust, absorbent clay or dirt, and sweep up for disposal.

**Waste Disposal:** Do not contaminate food, feed, or water by storage or cleaning of equipment. Pesticide, spray mixture or rinse that can not be used according to label instructions must be disposed according to applicable Federal, State, and local procedures. Keep out of domestic or natural waters.

## IX SPECIAL PROTECTION

**Respiratory:** Where adequate ventilation is not available and where exposure to spray mist could occur, wear a NIOSH approved respirator with a pesticide cartridge.

**Ventilation:** Mechanical (general) ventilation.

**Gloves:** Yes if contact would occur. **Type of Gloves:** Clean, chemical resistant

**Eye Protection:** Yes, goggles or glasses with side shields.

**Other Protective Equipment:** Clean work clothes. Do not wear contaminated clothing. Eye wash facility available.

## X SPECIAL PRECAUTIONS

**Handling Precautions:** Avoid ingestion. Avoid skin and eye contact. Do not breathe vapors or spray mist. Handle concentrate in well ventilated area. Avoid container damage. Wash thoroughly after handling.

**Storage Precautions:** Store in cool well ventilated area. Do not put leaking or damaged containers in storage. Do not store with feed or food.

**Other Precautions:** KEEP OUT OF REACH OF CHILDREN

This information relates solely to the designated product and is not inclusive for combinations with other materials. This information is given without warranty or representation. Information is based on data we believe to be correct as of the date hereof. This information is furnished solely for your consideration, investigation, and verification. Before using any product READ THE LABEL.

last revised: 11/94