

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS:

RedEagle International LLC
5143 S. Lakeland Drive, Suite 4
Lakeland, FL 33813

EMERGENCY TELEPHONE NUMBERS:

(800) 424-9300 (CHEMTREC, transportation and spills)
(800) 222-1222 American Association of Poison Control Centers

PRODUCT NAME:

ETHEPHON 6

CHEMICAL NAME:

(2-Chloroethyl) phosphonic acid

PRODUCT USE:

Plant Growth Regulator

CHEMICAL FAMILY:

ethylene generator

PRODUCT CODE:

EPA Reg. No. 85678-5

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200

Translucent liquid with no appreciable odor

HEALTH HAZARDS: DANGER – PELIGRO. CORROSIVE.

Causes irreversible eye damage. Avoid contact with skin. Harmful if swallowed, inhaled, or absorbed through skin

PHYSICAL HAZARDS: Corrosive to metals.

ENVIRONMENTAL HAZARDS: Avoid contaminating water sources.

**HAZARD STATEMENTS:**

Can cause eye burns and permanent tissue damage. Substance is harmful if absorbed through the skin. Large exposures may be fatal - Can cause chemical burn. Spray mist concentrations may be harmful. High concentrations may be fatal. Harmful if swallowed. Corrosive may cause severe and permanent damage to mouth, throat, and stomach. Symptoms of overexposure may include severe irritation of the mouth, throat, esophagus and stomach with severe abdominal and chest pain. May be corrosive to metals. Thermal decomposition may yield the following: oxides of carbon, oxides of phosphorus, hydrogen chloride.

SECTION 3 – COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS No.
Ethephon	54.0	16672-87-0

SECTION 4 - FIRST AID MEASURES

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

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by poison control center or doctor. Do not give any liquid to a person. Do not give anything by mouth to an unconscious person.

IF INHALED: Move person to fresh air, if person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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

Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

SECTION 5 - FIRE FIGHTING MEASURES

NFPA (National Fire Protection Association) HAZARD RATINGS

HEALTH	FLAMMABILITY	REACTIVITY
3	1	1

4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal

FLASHPOINT: Aqueous solution.

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE AND EXPLOSION HAZARD Material will not burn.

FIRE FIGHTING INSTRUCTIONS: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Evacuate area and fight fire from a safe distance. Dike and collect water used to fight fire to prevent environmental damage due to run off.

FIRE FIGHTING EQUIPMENT: Full firefighting turn-out gear (Bunker gear) including self-contained breathing apparatus with full face piece.

HAZARDOUS COMBUSTION PRODUCTS: May produce gasses such as hydrogen chloride and oxides of carbon and nitrogen.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: Stop the source of the spill if safe to do so. Contain the spill to prevent further contamination of soil, surface water, or ground water. Clean up spills immediately. Observe precautions in Section 8 of this document. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills with sand, vermiculite, or other absorbent inert ingredients. Place material in a container for proper disposal.

LARGE SPILL: Dike spill using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse or disposal. Allow absorbed material to solidify and scrape up for disposal. After removal, clean contaminated area thoroughly with water. Pick up wash liquid with additional absorbent for disposal. Minimize use of water to prevent environmental contamination.

CAUTION: Minimize use of water to prevent runoff into municipal sewers or other open bodies of water and minimize environmental contamination. Be sure to isolate any contaminated water. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

HANDLING: Use only in a well-ventilated area. Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing if pesticide gets inside clothing. Then wash thoroughly and put on clean clothing. Remove PPE after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Do not reuse container.

STORAGE: Keep pesticide in original container. Keep container tightly closed when not in use. Store in a locked storage area. Avoid cross contamination with other pesticides or fertilizers during handling and storage. Store in a cool, dry place. Do not contaminate water, feed, or food by storage and disposal. Do not store diluted spray.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION
--

EXPOSURE LIMITS:

COMPONENT	OSHA PEL	ACIGH TLV
Ethephon	Not listed	Not listed

ENGINEERING CONTROLS: Do not breathe vapors or spray mist. If specific use conditions create an environment for excessive exposure, use proper ventilation. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION: Protective eyewear. An emergency eyewash or water supply should be readily accessible to work area.

SKIN PROTECTION: Wear coveralls over long-sleeved shirt and long pants, chemical resistant shoes plus socks, and chemical-resistant gloves made of any waterproof material. Wear a chemical resistant apron when cleaning equipment, mixing, or loading. For overhead exposure wear chemical-resistant headgear. An emergency shower or water supply should be readily accessible to work area.

RESPIRATOR: Normally not required. If vapors or mists may exceed acceptable levels, wear NIOSH approved air-purifying respirator approved for pesticides.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly and change into clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Translucent liquid
Odor:	Minimal
pH:	1 - 2
Melting Point:	No data available
Boiling Point:	No data available
Freezing Point:	< - 20 °C
Flash Point:	Not applicable due to aqueous formulation
Evaporation Rate:	No data available
Flammability:	No data available
Flammability Limits:	No data available
Vapor Pressure:	0.00006 mmHg @ 20 °C
Vapor Density:	Not applicable
Density:	No data available
Solubility:	Soluble
Partition Coefficient:	No data available
Auto-Ignition Temperature:	No data available
Decomposition Temperature:	No data
Viscosity:	9.283 cSt (20° C)

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY:	Stable under normal handling and storage conditions.
HAZARDOUS REACTION/POLYMERIZATION:	Product will not undergo polymerization.
CONDITIONS TO AVOID:	Avoid excessive heat, direct sunlight, and exposure to air. Keep containers sealed.
INCOMPATIBLE MATERIALS:	Oxidizing agents and alkaline materials. Corrosive to iron, mild steel, aluminum and copper.
HAZARDOUS DECOMPOSITION PRODUCTS:	Hydrogen chloride and oxides of carbon and nitrogen maybe released during thermal decomposition. Reaction with alkaline materials causes evolution of ethylene gas.
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:	
Oral LD ₅₀ (rat):	> 2,970 mg/kg
Dermal LD ₅₀ (rat):	> 1,500 mg/kg
Inhalation LC ₅₀ (rat):	> 4.5 mg/l
Eye irritation (rabbit):	Corrosive
Skin irritation (rabbit):	Corrosive
Sensitization (guinea pig):	Not a contact sensitizer
CARCINOGEN STATUS:	
OSHA:	Not listed
NTP:	Not listed
IARC:	Not listed

MUTAGENICITY: No evidence of mutagenic effects during in vivo or in vitro studies.

GENOTOXICITY: There have been positive and negative studies but the weight of the evidence is that ethephon is not genotoxic.

SUBCHRONIC (TARGET ORGAN) EFFECTS: Repeated overexposure to ethephon may cause cholinesterase inhibition, red blood cell effects and/or kidney effects.

CARCINOGENICITY/CHRONIC HEALTH EFFECTS: Prolonged overexposure to ethephon may cause cholinesterase inhibition, body weight decreases and organ effects (thyroid, kidney, and liver). Ethephon did not cause cancer in laboratory animal studies.

REPRODUCTIVE TOXICITY: At the highest doses, ethephon caused decreased pup body weight in a two generation study in rats. No effects were observed on fertility, gestation, mating, organ weights, or histopathology.

DEVELOPMENTAL TOXICITY: No effects were observed from ethephon.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: 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 apply where runoff might occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate.

FATE: Ethephon has low to moderate soil mobility. It degrades rapidly in soil under aerobic conditions and in water under anaerobic conditions with a half-life ranging between 7 to 30 days.

ENVIRONMENTAL HAZARDS: Ethephon is slightly toxic to birds and aquatic invertebrates and even less toxic to aquatic organisms.

FISH TOXICITY: (technical)

96 hour LC₅₀, Rainbow trout – 350 mg/L

96 hour LC₅₀, Bluegill- 300 mg/L

AVIAN TOXICITY: (technical)

Dietary LD₅₀, Bobwhite quail- > 1,000 mg/Kg

Dietary LD₅₀, Mallard duck - > 6,000 ppm

BEE TOXICITY: Not toxic

SECTION 13 - DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE DISPOSAL: Pesticide waste may be acutely hazardous. Improper disposal is a violation of Federal law. If these waste cannot be disposed of according to label instructions, contact your state Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office.

CONTAINER DISPOSAL:

Non-refillable container: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. Refer to the product label for additional and complete Container Handling instructions.

Refillable container: Do not reuse this container for any other purpose than pesticides. Cleaning the container before refilling is the responsibility of the person refilling the container. To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container 1/10 full with water. Agitate vigorously or recirculate pump for about two minutes. Pour rinsate into application equipment or rinsate collection system. Repeat this procedure two more times. Refer to the product label for additional and complete Container Handling instructions.

SECTION 14 - TRANSPORT INFORMATION

DOT SHIPPING DESCRIPTION: UN3265, Corrosive liquid, acidic, organic, N.O.S. (Ethephon) 8, III

TRANSPORT HAZARD CLASS: 8

UN NUMBER: 3265

DOT PACKING GROUP: III

DOT EMERGENCY RESPONSE GUIDE: 153

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Not applicable

SARA TITLE III

311/312 HAZARD CATEGORY: Immediate health (acute), Delayed health (chronic)

313 TOXIC CHEMICALS: None

CALIFORNIA PROP 65: WARNING: Not listed.

TSCA: Exempted - solely for FIFRA regulated use.

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing this product or derived from the product should be classified as a hazardous waste.

SECTION 16 - OTHER INFORMATION

NFPA (National Fire Protection Association) HAZARD RATINGS

HEALTH	FLAMMABILITY	REACTIVITY
3	1	1

4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal

DISCLAIMER AND LIMITATION OF LIABILITY: The information presented herein is based on available data from reliable sources and is correct to the best of our knowledge. It does not relate to the use of such materials in combination with any other material or process. RedEagle International LLC makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. RedEagle International LLC disclaims all liability for reliance on such information. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. This data sheet is not a guarantee of safety. Users are responsible for insuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.