

MATERIAL SAFETY DATA SHEET

AGRILIANCE, LLC

PRODUCT NAME(S)For Emergency Call: 800-228-5635 or
Chem Trec: 800-424-9300**BOLL'D**

Effective Date: 01/14/98

I. IDENTIFICATION

CHEMICAL NAME OF PRIMARY COMPONENT(S): 2-(Chloroethyl) phosphonic acid

FORMULA: C₂H₆ClO₃P

MOLECULAR WEIGHT: 144.49

SYNONYMS: Ethephon

CAS # & NAME: 16672-87-0 Ethephon

EPA Reg No. 51036-218-9779

II. INGREDIENTS/SUMMARY OF HAZARDS

(H)/INGREDIENT(S)	CAS NUMBER	OSHA HAZARD NON-HAZARD (NH)	PERCENT
Ethephon	16672-87-0		55.4%
Formulation aids			44.6%

	NFPA ^{1/}	HMIS ^{2/}
HEALTH	2	2
FIRE	0	0
REACTIVITY	0	0

1/ National Fire Protection Association Rating

2/ Hazardous Materials Identification System

(4 = Extreme/Severe 3 = High/Serious 2 = Moderate 1 = Slight 0 = Minimum)

SARA TITLE III HAZARD CLASSIFICATION

IMMEDIATE (ACUTE) HEALTH	Yes
DELAYED (CHRONIC) HEALTH	Yes
FIRE	No
SUDDEN RELEASE OF PRESSURE	No
REACTIVE	No

III. PHYSICAL DATA

SPECIFIC GRAVITY: 1.30
BOILING POINT: Not determined
FREEZING POINT: < -40°C
VAPOR PRESSURE: 0.000061 (Ethephon)
SOLUBILITY IN WATER: Soluble
APPEARANCE: Clear to slightly hazy yellow liquid
ODOR: Mild odor

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Not applicable
FLAMMABLE LIMITS IN AIR: Not determined
AUTOIGNITION TEMPERATURE: Not determined
EXTINGUISHING MEDIA: Use carbon dioxide or dry chemical for small fires and water fog or foam (alcohol, polymer or ordinary) for large fires. Water stream may spread flames.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Avoid breathing smoke or mists when fire fighting.
SPECIAL FIRE FIGHTING PROCEDURES: Fire fighters should use self contained breathing apparatus and full turnout gear. Prevent runoff of fire water. Avoid exposure to smoke.

V. REACTIVITY DATA

STABILITY: Stable under normal temperatures.
CONDITIONS TO AVOID: Temperatures above 167°F
MATERIALS TO AVOID: Strong oxidizers and bases. Corrosive to metals such as iron, aluminum and copper.
HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen cyanides, hydrogen chloride, nitrogen oxides. Reaction with bases evolves ethylene gas.
HAZARDOUS POLYMERIZATION: Will not occur.

VI. HEALTH HAZARD DATA/FIRST AID PROCEDURES

TOXICOLOGY DATA:
Acute Oral LD₅₀ (Rat): 3270 mg/kg
Acute Dermal LD₅₀ (Rabbits): 1740 mg/kg
Acute Inhalation(Rats): >4.99 mg/L (4 hour)
Eye Irritation (Rabbits): Corrosive
Dermal Irritation (Rabbits): Severe irritation
Dermal Sensitization: Not determined

EXPOSURE LIMITS:

CHEMICAL NAME(S)	ACGIH (TLV)	OSHA (TWA)
Ethephon	Not established	Not established

CARCINOGENICITY, TERATOGENICITY, MUTAGENICITY: Not listed as a carcinogen by NRC, IARC or OSHA.

SIGNS OF POISONING: Nausea, vomiting, diarrhea, dizziness, drowsiness, pinpoint pupils and blurred vision skin and/or eye irritation, gastric irritation.

PRIMARY ROUTES OF ENTRY: Ingestion, eye and skin contact

EFFECTS OF SINGLE OVEREXPOSURE:

Swallowing: May cause severe irritation of the mouth, throat, esophagus and stomach with severe abdominal and chest pain, nausea, vomiting, diarrhea, dizziness, drowsiness, weakness, pinpoint pupils and blurred vision.

Skin Absorption: May lead to rapid onset of nausea, vomiting, abdominal pain, pinpoint pupils, and blurred vision. May be fatal if inhaled through the skin.

Inhalation: May cause irritation of the respiratory tract. May include choking coughing, burning of the throat, nausea, vomiting, dizziness, drowsiness, pinpoint pupils and blurred vision.

EFFECTS OF REPEATED OVEREXPOSURE: Prolonged or repeated overexposure may cause red and irritated eyes and skin. May cause dermatitis. May cause pulmonary edema and lung injury.

OTHER EFFECTS OF OVEREXPOSURE: May cause skin sensitization.

EXISTING MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Skin contact may aggravate preexisting skin conditions. Inhalation of mists may aggravate preexisting respiratory conditions.

EMERGENCY AND FIRST AID PROCEDURES:

Swallowing: If patient is alert and not convulsing, give 1 -2 glasses of water. Do not induce vomiting. Call a physician or poison control center. **PRECAUTION:** To prevent the aspiration of swallowed product, lay patient on side with the head lower than the waist.

Skin: Wash affected area with plenty of soap and water. Remove contaminated clothing. Launder contaminated clothing separately.

Inhalation: Remove victim to fresh air. If not breathing, administer artificial respiration. **GET MEDICAL ATTENTION.**

Eyes: Hold eyelids open and flush with a steady stream of water for at least 15 minutes. **GET MEDICAL ATTENTION.**

NOTE TO PHYSICIAN: Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically

VII. PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Dike the area using absorbent or materials such as sand or clay. Recover and contain as much product as possible using absorbent. Clean spill area using a solution of water and detergent. Collect and contain wash water and all contaminated absorbent for disposal. If spilled on the ground, the affected area should be excavated to a depth of 1 - 2 inches. Prevent the spilled product or washings from reaching public sewers or waterways. Wear appropriate protective equipment during the cleanup. Ensure that tools and equipment are adequately decontaminated.

WASTE DISPOSAL METHOD: Dispose of in accordance with federal, state and local regulations.

CONTAINER DISPOSAL: Dispose of in an approved facility according to federal, state and local regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in a cool, dry, secure area away from sources of heat.

VIII. SPECIAL PROTECTION INFORMATION

PROTECTIVE EQUIPMENT SHOULD BE USED DURING THE FOLLOWING PROCEDURES:

- Manufacture or formulation of this product.
- Repair and maintenance of contaminated equipment.
- Clean up of leaks and spills.
- Any other activity that may result in hazardous exposures.

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirator for organic vapors. Use positive pressure contained breathing apparatus where emergency conditions or where exposure limits are exceeded.

VENTILATION: Local exhaust

PROTECTIVE CLOTHING: Chemical resistant gloves, coveralls, apron and foot coverings.

EYE PROTECTION: Safety goggles.

USER SAFETY RECOMMENDATIONS: Safety showers and eye wash should be easily accessible.

IX. REGULATORY STATUS

TSCA INVENTORY STATUS:

TRANSPORTATION STATUS:

DOT INFORMATION:

Container Capacity	Proper Shipping Name	Hazard Class	Label	Packing Group
All sizes	Corrosive liquids, N.O.S. (contains ethephon), UN 1760	8	Corrosive (8)	III

SARA TITLE III

Section 302-304 (40 CFR 350):

Extremely Hazardous Substance (EHS): Not listed

Section 312, Reporting (40 CFR 370):

SARA/OSHA Hazardous Chemical Reporting Quantity: 10,000 pounds

Section 313, Toxic Chemicals: Not listed

Reportable Quantity (RQ): Not applicable

RCRA HAZARDOUS WASTE: Not listed

International Right-To-Know Regulations:

X. REFERENCES

- 1) Supplier sponsored studies.

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH,
BUT, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE.