



# Safety Data Sheet

Issue Date: 06-Aug-2008

Revision Date: 09--Oct-2015

Version 2

## 1. IDENTIFICATION

### Product Identifier

Product Name

**Ethephon 2SL**

### Other means of identification

SDS #

MANA-004

Registration Number(s)

EPA Reg. No. 66222-151

UN/ID No

UN3265

### Recommended use of the chemical and restrictions on use

Recommended Use

EPA registered pesticide.

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Makhteshim Agan of North America, Inc.

3120 Highwoods Blvd., Suite 100

Raleigh, NC 27604

1-919-256-9300

### Emergency Telephone Number

Emergency Telephone (24 hr)

For fire, spill and/or leak contact INFOTRAC:

1-800-535-5053 (North America) 1-352-323-3500 (International)

For medical emergencies and health/safety inquiries, contact PROSAR:

1-877-250-9291

## 2. HAZARDS IDENTIFICATION

This chemical is a product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-EPA registered chemicals. Please see Section 15 for additional EPA information.

**Appearance** Translucent yellow liquid

**Physical State** Liquid

**Odor** Odorless

### Classification

Skin corrosion/irritation	Category 1 Sub-category C
Serious eye damage/eye irritation	Category 1

### Hazards Not Otherwise Classified (HNOC)

May be harmful in contact with skin

### Signal Word

**Danger**

### Hazard Statements

Causes severe skin burns and eye damage



**Precautionary Statements - Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

Immediately call a poison center or doctor/physician  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a poison center or doctor/physician  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a poison center or doctor/physician  
 IF SWALLOWED: rinse mouth. Do NOT induce vomiting

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No	Weight-%
2-Chloroethylphosphonic acid	16672-87-0	21.0 - 22.4

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

**4. FIRST-AID MEASURES**

**First Aid Measures**

- General Advice**                      When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
  
- Eye Contact**                          Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
  
- Skin Contact**                          IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Get medical attention if necessary.
  
- Inhalation**                              If inhaled remove to fresh air. Give oxygen if breathing is difficult. If breathing has stopped, call 911, give artificial respiration. Immediately call a physician.
  
- Ingestion**                                Immediately call a poison center or doctor/physician. DO NOT induce vomiting. If conscious, drink 8-10 oz. of water promptly. Never give anything by mouth to an unconscious person. Obtain medical attention. Do not induce vomiting unless directed by medical personnel.

**Most important symptoms and effects**

**Symptoms** Causes severe skin burns and eye damage. Will irritate mucous membranes. May cause skin redness, irritation or swelling. Ingestion may cause severe burns to mouth, throat or stomach.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically. If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Water spray (fog). Dry chemical. Foam. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

Not determined.

**Hazardous Combustion Products** May include and are not limited to oxides of carbon and phosphorous. Hydrogen chloride.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate area of unprotected personnel. Remain upwind of fire to avoid hazardous vapors and decomposition products. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Wear protective clothing as described in Section 8 of this safety data sheet. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**Environmental Precautions** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** For small spills, absorb with sand, clay, or other inert absorbent. Place in appropriate containers for disposal. For large spills: recover free product. Dike for later disposal. Absorb with inert material, and then place in suitable container for chemical waste.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment.

**Conditions for safe storage, including any incompatibilities**

<b>Storage Conditions</b>	Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep out of the reach of children. Store away from incompatible materials. Protect from excessive heat. Store locked up.
<b>Incompatible Materials</b>	Strong bases. Strong oxidizing agents. Metals such as aluminum, tin, and zinc.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering Controls** Please refer to the product label. Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	Use splash goggles or face shield when contact may occur.
<b>Skin and Body Protection</b>	Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Viton or other impervious gloves are required. Long sleeve shirt, trousers, and safety shoes.
<b>Respiratory Protection</b>	Ensure adequate ventilation, especially in confined areas. Wear an appropriate NIOSH/MSHA approved respirator if ventilation is inadequate.
<b>General Hygiene Considerations</b>	Wash hands before eating, drinking, smoking and using the toilet. Remove contaminated clothing promptly and wash thoroughly before reused.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical State</b>	Liquid	<b>Odor</b>	Odorless
<b>Appearance</b>	Translucent yellow liquid	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Translucent Yellow		

Property	Values	Remarks • Method
<b>pH</b>	1.65 @ ~25°C	
<b>Melting Point/Freezing Point</b>	Not applicable	
<b>Boiling Point/Boiling Range</b>	100 °C / 212 °F	
<b>Flash Point</b>	Not applicable	
<b>Evaporation Rate</b>	Not determined	
<b>Flammability (Solid, Gas)</b>	Liquid-not applicable	
<b>Upper Flammability Limits</b>	Not applicable	
<b>Lower Flammability Limit</b>	Not applicable	
<b>Vapor Pressure</b>	Not established	
<b>Vapor Density</b>	Not determined	
<b>Specific Gravity</b>	1.11	
<b>Water Solubility</b>	Miscible in water	
<b>Solubility in other solvents</b>	Not determined	
<b>Partition Coefficient</b>	Not determined	
<b>Auto-ignition Temperature</b>	Not determined	
<b>Decomposition Temperature</b>	Not determined	
<b>Kinematic Viscosity</b>	Not determined	

<b>Dynamic Viscosity</b>	Not determined
<b>Explosive Properties</b>	Not determined
<b>Oxidizing Properties</b>	Not determined
<b>Bulk Density</b>	11 lb/gal @ ~25°C

**10. STABILITY AND REACTIVITY**

**Reactivity**

Not reactive under normal conditions.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization**      Not known to occur.

**Conditions to Avoid**

Elevated temperatures.

**Incompatible Materials**

Strong bases. Strong oxidizing agents. Metals such as aluminum, tin, and zinc.

**Hazardous Decomposition Products**

May include but are not limited to: oxides of carbon, oxides of phosphorous. Hydrogen chloride.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information**

**Eye Contact**      Causes severe eye damage.

**Skin Contact**      Causes severe skin burns.

**Inhalation**      Avoid breathing vapors or mists.

**Ingestion**      Do not taste or swallow.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Chloroethylphosphonic acid 16672-87-0	= 3400 mg/kg ( Rat )	= 5730 mg/kg ( Rabbit )	= 90 mg/m <sup>3</sup> ( Rat ) 4 h

**Information on physical, chemical and toxicological effects**

**Symptoms**      Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity**      Not classifiable as a human carcinogen.

**Product Information (Numerical measures of toxicity)**

**Acute Oral LD50 (Rat):** >5,000 mg/kg

**Acute Dermal LD50 (Rabbit):** >2,000 mg/kg

**Acute Inhalation LC50 (Rat):** No data available.

**Eye Irritation:** Moderately irritating.

**Dermal Irritation:** Minimally irritating.

**Dermal Sensitization:** Not available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Do not contaminate water used for irrigation or domestic purposes. 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 waters. Avoid spray drift to nearby crops, as this product will cause modifications in plant growth. Plant injury or reduced yields may result.

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

Not determined.

**Mobility**

Not determined

**Other Adverse Effects**

Not determined

**13. DISPOSAL CONSIDERATIONS**

**Waste Treatment Methods**

**Disposal of Wastes**

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinse 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 Hazardous Waste representative at the nearest EPA regional office. Never place any unused product down an indoor or outdoor drain. Do not contaminate water, food or feed by disposal.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**14. TRANSPORT INFORMATION**

**DOT**

<b>UN/ID No</b>	UN3265
<b>Proper Shipping Name</b>	Corrosive liquid, acidic, organic, n.o.s. (ethephon)
<b>Hazard Class</b>	8
<b>Packing Group</b>	III

**IATA**

<b>UN/ID No</b>	UN3265
<b>Proper Shipping Name</b>	Corrosive liquid, acidic, organic, n.o.s. (ethephon)
<b>Hazard Class</b>	8
<b>Packing Group</b>	III

**IMDG**

<b>UN/ID No</b>	UN3265
<b>Proper Shipping Name</b>	Corrosive liquid, acidic, organic, n.o.s. (ethephon)
<b>Hazard Class</b>	8
<b>Packing Group</b>	III

**15. REGULATORY INFORMATION****International Inventories**

**TSCA** All ingredients are listed or exempt from listing on Chemical Substance Inventory

**Legend:**

*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory*

**US Federal Regulations****SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**SARA 313**

Not determined

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under applicable state right-to-know regulations

**EPA Pesticide Registration Number** 66222-151**EPA Statement**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**EPA Pesticide Label**

Signal Word: DANGER

Corrosive: Causes irreversible eye damage. Wear safety goggles when handling. Harmful if swallowed or absorbed through skin. Do not get in eyes or on clothing. Avoid contact with skin. Do not inhale vapors, as this product will irritate mucous membranes.

**Difference between SDS and EPA pesticide label**

	<b>EPA</b>	<b>OSHA</b>
<b>Signal Word</b>	Danger	Danger
Acute toxicity - Oral	Harmful if swallowed	N/A
Acute toxicity - Dermal	Harmful if absorbed through the skin	May be harmful in contact with skin
Skin corrosion/irritation	N/A	Causes severe skin burns
Serious eye damage/eye irritation	Causes irreversible eye damage	Causes severe eye damage
STOT - single exposure	Will irritate mucous membranes	N/A

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	3	1	0	None
<b><u>HMIS</u></b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical Hazards</b>	<b>Personal Protection</b>
	3	1	0	See section 8

**Issue Date:** 06-Aug-2008  
**Revision Date:** 9-Oct-2015  
**Revision Note:** Updated format from 02-Jun-2014

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**