

MATERIAL SAFETY DATA SHEET

Ethephon 2SL

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1. IDENTIFICATION

Product name: **Ethephon 2SL**
 Chemical name of active ingredient(s): Ethephon (21.7%): (2-chloroethyl) phosphonic acid
 Manufacturer: Makhteshim Agan of North America, Inc.
 4515 Falls of Neuse Road, Suite 300
 Raleigh, NC 27609
 Phone: 919-256-9300
 For fire, spill, and/or leak emergencies, contact Phone: 1-800-535-5053
 Infotrac:
 For medical emergencies and health and safety Phone: 1-877-250-9291
 inquiries, contact Prosar:

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Ethephon	16672-87-0	21.7	NE	NE	NA	NA
NE=not established						
NA=not available						

3. HAZARDS IDENTIFICATIONS

PHYSICAL PROPERTIES

Appearance: Translucent, yellow liquid

Odor: Odorless

EMERGENCY OVERVIEW: 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.

PRIMARY ROUTES OF EXPOSURE: Eyes, skin and inhalation.

SYMPTOMS OF ACUTE EXPOSURE: Causes irreversible eye damage. Will irritate mucous membranes. May cause skin redness, irritation or swelling. May cause burns to mouth and throat if ingested.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may yield the following: oxides of carbon, oxides of phosphorus, hydrogen chloride.

4.FIRST AID MEASURES

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none"> 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:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of soap and water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> Immediately call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by the poison control center or doctor. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.
IF INHALED:	<ul style="list-style-type: none"> 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 treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Prosar at 1-877-250-9291 for emergency medical treatment information.	

Note to physician: Probably mucosal damage may contraindicate the use of gastric lavage. No specific antidote is available. All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. Victims of severe overexposure by inhalation should be kept under medical observation for up to 72 hours for delayed onset of pulmonary edema. In a victim of overexposure by ingestion, careful gastric lavage is required due to the possibility of stomach or esophageal perforation. This material is an acid, but the use of alkaline substances to neutralize it is contraindicated.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not applicable.

FLAMMABLE LIMITS:

LFL/UFL: Not applicable

EXTINGUISHING MEDIA: Water spray, dry chemical, foam, or CO₂.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may yield the following: oxides of carbon, oxides of phosphorus, hydrogen chloride.

SPECIAL FIRE-FIGHTING PROCEDURES: Remain upwind. Avoid breathing smoke/fumes. Use water spray to cool containers exposed to fire. Contain run-off. Wear self-contained breathing apparatus (pressure-demand MSHA/NIOSH approved or equivalent) and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: If container is broken or contents have spilled, follow all precautions indicated above 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.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Do not contaminate water, food, or feed by storage or handling.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in a cool, dry place and away from food, feed, water, fertilizers, seed and other pesticides. Store away from excessive heat (e.g., steam pipes, radiators).

STORAGE TEMPERATURE (MIN/MAX): Avoid elevated temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

EYE PROTECTION: Use protective eyewear or face shield.

SKIN PROTECTION: Wear coveralls over short or long pants and short or long-sleeved shirt, and chemical-resistant footwear plus socks. Use rubber boots since calcium absorbs moisture from leather footwear causing shrinking. Chemical-resistant headgear for overhead exposure. Chemical-resistant apron when mixing, loading or cleaning equipment.

HAND PROTECTION: Use chemical-resistant gloves made of any waterproof material such as nitrile, butyl, neoprene, and barrier laminate.

RESPIRATOR REQUIREMENTS: For typical handling/use conditions, no respiratory protection is needed.

ADDITIONAL PROTECTIVE MEASURES: Do not get in eyes or on skin. Avoid breathing vapors or mists. Do not ingest. Do not store, use and/or consume foods, beverages, tobacco products or cosmetics in areas where this product is stored. Wash hands and face before eating, drinking, using tobacco, applying cosmetics or using the toilet.

USER SAFETY RECOMMENDATIONS:

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Users should:

- 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. Wash contaminated clothing before reuse.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Refer to product label.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Appearance: Translucent, yellow liquid

Odor: Odorless

FLASH POINT: Not applicable.

pH: Not established.

BOILING POINT: 212° F(100° C)

MELTING POINT: Not applicable.

SOLUBILITY IN H2O: Miscible.

SPECIFIC GRAVITY: 1.11

VAPOR PRESSURE: Not established.

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal use and storage conditions.

CONDITIONS TO AVOID: Avoid elevated temperatures.

MATERIALS TO AVOID: Avoid contact with zinc, aluminum, strong bases and strong oxidizing agents.

HAZARDOUS POLYMERIZATION: Not known to occur.

INSTABILITY CONDITIONS: None known.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may yield the following: oxides of carbon, oxides of phosphorus, hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

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:	No data available.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: 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 washwaters. Avoid spray drift to nearby crops, as this product will cause modifications in plant growth. Plant injury or reduced yields may result.

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

PRODUCT DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, 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: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

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DOT CLASSIFICATION:

UN3265, Corrosive liquid, acidic, organic, N.O.S. (ethephon), 8, PGIII

NOTE: Combination packages with inner packagings less than 5 liters (1.3 gallons) may be reclassified as a Consumer Commodity (ORM-D). These packages cannot be shipped by air freight.

NOTE: Consumer Commodity (ORM-D) classification is for domestic surface/ground shipments only (4x1-gallon and 4x1-quart packages). Air shipments remain regulated.

INTERNATIONAL TRANSPORTATION:

IMO (vessel): UN3265, Corrosive liquid, acidic, organic, N.O.S. (ethephon), 8, PGIII

IATA (air): UN3265, Corrosive liquid, acidic, organic, N.O.S. (ethephon), 8, PGIII

15. REGULATORY INFORMATION

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.
Section 311/312: Acute health hazard (immediate)
Delayed health hazard (chronic)
Section 313: Not applicable.

CA PROPOSITION 65: Not applicable.

CERCLA RQ: Not applicable.

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

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

NFPA HAZARD RATINGS	0	MINIMAL
Health:	3	1 Slight
Flammability:	1	2 Moderate
Reactivity:	0	3 High
	4	Severe

MSDS DATE: 8-6-08.

The information herein is given in good faith, but no warrant, express or implied, is made. Consult Makhteshim Agan of North America, Inc. for further information.