



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

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 (CO₂).

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

| | |
|-------------------------------|--|
| Storage Conditions | 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. |
| Incompatible Materials | 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

| | |
|---------------------------------------|---|
| Eye/Face Protection | Use splash goggles or face shield when contact may occur. |
| Skin and Body Protection | 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. |
| Respiratory Protection | Ensure adequate ventilation, especially in confined areas. Wear an appropriate NIOSH/MSHA approved respirator if ventilation is inadequate. |
| General Hygiene Considerations | 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

| | | | |
|-----------------------|---------------------------|-----------------------|----------------|
| Physical State | Liquid | Odor | Odorless |
| Appearance | Translucent yellow liquid | Odor Threshold | Not determined |
| Color | Translucent Yellow | | |

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

| | |
|-----------------------------|-------------------|
| Dynamic Viscosity | Not determined |
| Explosive Properties | Not determined |
| Oxidizing Properties | Not determined |
| Bulk Density | 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 ³ (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

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

IATA

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

IMDG

| | |
|-----------------------------|--|
| UN/ID No | UN3265 |
| Proper Shipping Name | Corrosive liquid, acidic, organic, n.o.s. (ethephon) |
| Hazard Class | 8 |
| Packing Group | 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**

| | |
|--|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | Yes |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | 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

| | EPA | OSHA |
|-----------------------------------|--------------------------------------|-------------------------------------|
| Signal Word | 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

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

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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