



SHANGHAI BOSMAN INDUSTRIAL CO., LTD.

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Version: 1.0 Issue date: June 1, 2023

MATERIAL SAFETY DATA SHEET OF

ETHEPHON 720 G/L SL

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Supplier: Shanghai Bosman Industrial Co., Ltd.

Street address: Room 1804, No.1611, North Sichuan Road, Hongkou District, Shanghai, P.R. China.

FAX: +86 21 63065878

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Product name: Ethephon 720g/L SL

2. COMPOSITION/INFORMATION ON INGREDIENTS

Active Ingredients: Ethephon

Chemical Abstracts name: (2-chloroethyl)phosphonic acid

Composition:

INGREDIENT	CAS NO	PROPORTIONg/L (w/v)
Ethephon	16672-87-0	720
Inert ingredients	Not available	up to 1L

Other ingredients determined not to be hazardous

3. HAZARDS IDENTIFICATION

Health hazards: DANGER. 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

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4. FIRST AID MEASURES

General advice Remove contaminated clothing immediately and dispose of safely. When symptoms develop and persist, seek medical advice.

Inhalation: Move to fresh air. Keep patient warm and at rest. Seek medical treatment

Skin contact: In case of contact with skin wash off immediately with polyethylene glycol 400, then with plenty of water. Get medical attention if irritation develops and persists. Seek medical treatment

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

Ingestion: Do NOT induce vomiting. Rinse out mouth and give water in small sips to drink. Monitor the acid-base status for metabolic acidosis, which should be treated with sodium bicarbonate as usual. Call a physician or poison control center immediately.

Notes to physician: No specific antidote. Treatment symptomatically.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:

Water spray, foam, carbon dioxide (CO₂), dry powder

Specific hazards during fire fighting

In the event of fire the following may be released: carbon monoxide (CO), nitrogen oxides (NO_x), Oxides of phosphorus, Hydrogen chloride (HCl)

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENT RELEASE MEASURES

Personal precautions

Keep people away from and upwind of spill/leak. Avoid contact with spilled product or contaminated surfaces. When dealing with a spillage do not eat, drink or smoke. Use personal protective equipment.

Environmental precautions

Do not allow to get into surface water, drains and ground water.

Methods for cleaning up

Collect and transfer the product into a properly labelled and tightly closed container.

When picked up, treat product as prescribed in Ch. 13. "Disposal considerations".

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Recover the product by pumping, suction or absorption using a dry and inert absorbent clay.

Additional advice

Information regarding safe handling, see section 7.

Information regarding personal protective equipment, see section 8.

Information regarding waste disposal, see section 13.

7. HANDLING AND STORAGE

Handling: 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 clean

Storage: 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Personal protective equipment**

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

No personal respiratory protective equipment normally required. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection

Wear CE Marked (or equivalent) nitrile rubber gloves (minimum thickness 0,40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.

Eye protection

Wear goggles conforming to EN166 (Field of Use 5 or equivalent).

Skin and body protection

Wear standard coverall and type 6 suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

Hygiene measures

Wash hands immediately after work, if necessary take a shower. Smoking, eating and drinking should be

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prohibited in the application area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid

Odor: NA

pH: 1.5-3.0

Water solubility: Completely miscible

Flash point: NA

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

The following information is for the active ingredient, ethephon

Acute toxicity:

Oral: LD₅₀ for rats 1564 mg/kg.

Dermal: LD₅₀ for rabbits 1560 mg/kg.

Inhalation: LC₅₀ for rats 4.52 mg/l.

Irritant properties:

Skin: Irritating to skin (rabbit).

Eye: Irritating to eyes (rabbit).

Allergenic and sensitizing effects:

Not considered to be a skin sensitizer (Guinea pig).

12. ECOLOGICAL INFORMATION

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Ecotoxicity:

Birds Acute oral LD₅₀: for bobwhite quail 1072 mg/kg.
Dietary LC₅₀ (5 days): for bobwhite quail >5000 ppm in diet.

Fish LC₅₀ (96 h): for carp >140, rainbow trout 720 mg/l.

Daphnia EC₅₀ (48 h): 1000 mg/l.

Algae EC₅₀: for Chlorella vulgaris 32 mg/l.

Bees Harmless to bees.

Earthworm: Not toxic to earthworms.

Persistence and degradability: In soil, rapid degradation to phosphoric acid, ethylene, and chloride ions was reported.

13. DISPOSAL CONSIDERATION

Pesticide disposal: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers.

Comply with local legislation applying to waste disposal.

Container disposal: Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.

TRIPLE RINSE empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner. Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils. Comply with local legislation applying to waste disposal.

14. TRANSPORT INFORMATION

ADR/RID/ADNR

UN Number: 3265

UN Proper shipping name: Corrosive solid, acidic, organic, N.O.S (Ethephon)

Transport hazard class: 8

Packing group: III

IMDG



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IATA

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UN Proper shipping name: Corrosive solid, acidic, organic, N.O.S (Ethephon)

Transport hazard class: 8

Packing group: III

15. REGULATORY INFORMATION

Follow all local, international laws and regulations.

16. OTHER INFORMATION

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This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.

-- END OF MSDS --