

Ripen-It

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: Ripen-It
Pesticide Classification: Plant Growth Regulator
UN No.: 3265

Supplier

Enviro Bio-Chem (Pty) Ltd
Co. Reg. No.: 2013/194774/07
44 Kerk Street, Lichtenburg
North West, South Africa 2740

Registration Holder

RT Chemicals CC
Co. Reg. No.: CK87/21925/23
44 Kerk Street, Lichtenburg
North West, South Africa 2740

Telephone: +27 87 231 7261
Fax: 086 541 7948
Website: www.envirobiochem.co.za

24 Hr Emergency Number: Bateleur: +27 83 123 3911

In case of Poisoning:

Poison Information Centre: +27 82 446 8946
Tygerberg Hospital: (+27 21) 931 6129
Poison Emergency Enquiries: (+27 21) 689 5227

Common Name: Ethephon 480 g/l SL
Chemical Name: 2-chloroethylphosphonic acid
Empirical Formula: $C_2H_6ClO_3P$
CAS No.: 16672-87-0
RSA Reg. No.: L6261 Act/Wet No. 36 of/van 1947

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient Name</u>	<u>Concentration</u>
Ethephon	≥480 g/l
Inert Ingredients	≤520 g/l

3. HAZARD IDENTIFICATION

Hazard Class: WHO Class III -Slightly hazardous.

Main Hazard: This product is corrosive. May cause severe eye irritation and can cause corneal burns and permanent tissue damage.

Flammability: Non-flammable

Chemical Hazard: Ethylene gas is released with decomposition.

Biological Hazard: This material is slightly toxic to fish and wildlife.

4. FIRST AID MEASURES AND PRECAUTIONS

If poisoning is suspected, do not wait for symptoms to develop. Contact a physician, the nearest hospital or the nearest Poison Control Centre.

Symptoms of Human Poisoning: No signs and symptoms of poisoning are known or expected in humans.

First Aid Measures:

Skin Contact: Remove contaminated clothing and wash before re-use. Wash affected skin areas with fresh running water and soap. Treat symptomatically. If irritation persists, seek medical advice.

Eye Contact: Hold eyes open and flush immediately with clear, clean running water for at least 15 minutes. If eye symptoms (redness, irritation or pain) persist refer patient to ophthalmologist for examination of eye.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention immediately. Qualified medical personnel should perform administration of oxygen. If the person is alert, rinse mouth thoroughly with water and give the person a glass of milk to drink.

Inhalation: Move victim from contaminated area to fresh air. Apply artificial respiration if necessary. Avoid inhalation of vapor or spray mist. Seek medical attention.

Advice to Physician: The product is an acid and is corrosive.

Oral Exposure Treatment: If the product has been ingested, do not give bicarbonate to neutralize and activated charcoal is of no value. Dilute the acid by drinking large amounts of water or milk. Observe patient carefully for possible development of oesophageal or gastrointestinal tract irritation or burns.

Eye Damage Treatment: It may take 48 to 72 hours after the burn to correctly assess the degree of ocular damage. If ocular damage is minor, topical mydriatics and antibiotics may be sufficient. If more extensive, consult ophthalmologist.

Skin Contact Treatment: Chemical burns to skin are often associated with concurrent thermal burns and trauma. Deep or extensive burns may require grafting. Prolonged or repeated exposure can result in dermatitis. Ulcerations may also occur. Treat symptomatically and supportively

5. FIRE FIGHTING MEASURES

Flammability: Non-flammable

Extinguishing Agents: Extinguish fires with CO₂, dry powder or alcohol-resistant foam.

Firefighting: Wear full protective clothing and self-contained breathing apparatus. Evacuate non-essential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

Special Hazards: Avoid inhalation of hazardous vapours. Keep material out of sewers and water sources.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal Precautions: Wear protective clothing. Avoid breathing vapours or spray drift. Avoid contact with skin and eyes.

Environmental Precautions: Do not contaminate ponds, waterways or ditches with chemical or used containers. Do not allow product to enter drainage systems, surface or ground water. Inform competent authority if the product enters watercourses or contaminate soil.

Spills: Contain the spill to prevent it from spreading and contaminating soil, sewage and drainage systems or any body of water. Clean up spills immediately, observing the precautions outlined in Section 8. Cover the entire spill with absorbing material and place the waste into a compatible disposal container. Scrub the area with a hard water detergent. Pick up wash liquid once more with additional absorbent and place it into a compatible disposal container. Once all material is cleaned up the containers must be sealed and disposed of according to Section 13 of this document.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Avoid contact with skin, eyes and clothing. Do not leave spray solution in spray tanks for long periods. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Remove clothing immediately if the product gets inside, then wash skin thoroughly using non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present or to intertidal areas below the mean high-water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

Storage: Store at temperature not exceeding 40 °C. Store in original sealed containers, in a well-ventilated and dry storehouse. Keep away from direct sunlight, food, seed, animals, children and uniformed persons.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Acceptable Daily Intake (ADI): 0.05 mg/kg body weight.

Engineering Controls: Use outdoors in a well-ventilated area. Comply with occupational safety, environmental, fire and other applicable regulations. Wear suitable personal protective equipment.

Personal Protective Equipment:

Clothing: Long-sleeved shirt, long pants, shoes plus socks, protective waterproof (impermeable) gloves. Employee must wear appropriate protective clothing and equipment to prevent prolonged skin contact with this product. Clothing soaked with Ripen-It solution should be promptly removed and laundered before re-use.

Gloves: Protective waterproof (impermeable) rubber or plastic gloves are recommended.

Eye Protection: Wear eye protection. During mixing or pouring operations or other activities in which eye contact with undiluted Ripen-It is likely to occur, splash goggles should be worn. Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

Respiratory: Avoid inhaling fumes or spray drift. An approved respirator suitable for protection from mists of pesticides is adequate. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

Other Protection: Do not eat, drink or smoke while handling this product. Prevent contamination of food, feeds, drinking water and eating utensils. After using this product wash hands and face before eating. Take extreme care to avoid drift. Wash accurately (preferably a shower) after a work shift. Wash hands with soap and water during breaks and at the end of work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear pale brown liquid.

Odor: Perceptible odor.

pH: 1.2 ± 0.1 in 5 % aqueous solution and 0.62 ± 0.1 in 100 % aqueous solution.

Flash Point: Not applicable.

Flammability: Non-flammable

Density: 1.245 g/ml at 25 °C.

Solubility in Water: Readily soluble in water.

10. STABILITY AND REACTIVITY

Stability: Stable for a period of 2 years under normal warehouse conditions. Will decompose at temperatures above 75 °C. Product is UV irradiation sensitive. Product is stable in aqueous solutions with a pH of <5. At higher pH values the product decomposes to ethylene.

Conditions to Avoid: Avoid excessive heat.

Incompatible Materials: Incompatible with strong oxidizing agents, alkaline materials and solutions containing metal ions.

Decomposition Products: Ethylene gas is released with decomposition.

11. TOXICOLOGICAL INFORMATION

Acute toxicity based on the active ingredient toxicity.

Acute Oral LD₅₀ (rat): 4 250 mg/kg body weight.

Acute Dermal LD₅₀ (rabbit): >5 000 mg/kg body weight.

Acute Inhalation LC₅₀ (rat, 4 hr): >13.11 mg/l air.

Skin and Eye Irritation (rabbit): Causes severe skin and eye irritation. May cause irreversible damage.

Skin Sensitization (guinea pig): The product is considered to be a skin sensitizer.

Chronic Dietary Study: No data available.

Carcinogenicity: Animal studies did not detect any carcinogenic effects.

Mutagenicity: Animal studies did not detect any mutagenic effects.

Reproductive Hazard: A developmental toxicity was conducted on rabbits. The teratogenic NOEL was > 50 mg/kg/day. Embryotoxic NOEL was 50 mg/kg/day. An increased average number of resorptions occurred.

12. ECOLOGICAL INFORMATION

Ecotoxicity is based on the active ingredient toxicity.

Aquatic Toxicity Fish LC₅₀ (96 hr): 254 to 350 mg/l (rainbow trout); 222 to 300 mg/l (bluegill sunfish). Practically non-toxic to fish.

Aquatic Toxicity Daphnia EC₅₀ (48 hr): 577 mg/l.

Aquatic Toxicity Algae EC₅₀ (5 days): 505 mg/l.

Avian Toxicity LD₅₀ (9 days): No data available.

Bee Toxicity LD₅₀: Non-toxic to bees.

Biodegradability: In soil, rapid degradation to phosphoric acid, ethylene and chloride ions was reported. In plants, ethephon rapidly degrades to phosphate, ethylene and chloride. Ethephon and the ethylene gas it produces, are the major metabolites in plants.

Bio-accumulation: No data available.

Mobility: Ethephon was found to have low to moderate mobility in soils ranging in texture from loamy sand to peat and silt loam. Therefore, the potential for contamination of groundwater appears to be low to moderate.

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Do not contaminate crops, grazing, rivers or dams with chemical or used container. Waste resulting from the use of this product that cannot be re-used or reprocessed must be disposed of as hazardous waste via a licensed disposal contractor to an approved landfill. Comply with any local legislation applying to waste disposal.

Package Product Wastes: Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is cleaned, reconditioned or destroyed. Rinse empty container three times with a volume of water equal to at least one tenth of that of the container. Add the rinsings to the spray tank before perforating and flattening the container. Dispose of in approved landfill or preferably in a pesticide incinerator.

14. TRANSPORT INFORMATION

UN No.: 3265

Class: 8

Packaging Group: III

Proper Shipping Name: Corrosive Liquid; Acidic; Organic; N.O.S. (contains Ethephon)

15. REGULATORY INFORMATION

Risk Phrases: **R20/21-** Harmful by inhalation and in contact with skin.

R34- Causes burns.

R36/37/38- Irritating to eyes, respiratory system and skin.

R41- Risk of serious damage to eyes.

R52- Harmful to aquatic organisms.

Safety Phrases: **S2-** Keep out of reach children.

S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.

S61- Avoid release to the environment.

National Legislation: This product is registered under Act 36 of 1947 of the Republic of South Africa. It is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions.

16. OTHER INFORMATION

Note: Read and understand all the information on the product label before using the product.

Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.

All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

END OF DOCUMENT