

Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE / MISTURE AND OF THE COMPANY

1.1 Product Name: Fruitcare

1.2 Use: Home & Garden

1.3 Company Name:

Coopers Manufacturing CC
Reg. No. 2004/01564/23
P.O. Box 14374
BREDELL 1623
SOUTH AFRICA
TEL: (011) 979-4246/7

1.4 Emergency Contact Numbers:

Tygerberg Poison Centre: +27 21 931 6129
Griffon Poison Information Centre: +27 82 446 8946

2. HAZARD IDENTIFICATION

2.1 Hazard Class:

GHS Category 3
WHO Class II

2.2 Main Hazard:

SANS 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]		
Hazard classes/Hazard categories	Hazard code	Hazard statement
Acute toxicity oral (Category 4)	H302	Harmful if swallowed.
Acute toxicity dermal (Category 4)	H312	Harmful in contact with skin.
Acute toxicity inhalation (Category 3)	H331	Toxic if inhaled.
Germ cell mutagenicity (Category 2)	H341	Suspected of causing genetic defects.
Specific Target Organ Toxicity Repeated Exposure (Category 1)	H372	Causes damage to organs through prolonged or repeated exposure.
Hazardous to the aquatic environment (Acute 1)	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment (Chronic 1)	H410	Very toxic to aquatic life with long lasting effects.

2.3 Physical hazard: None.

2.4 Environmental Hazard: Very toxic to aquatic life with long lasting effects.

2.5 Precautions:

Precaution code	Precaution statement
P261	Avoid breathing vapours.
P264	Wash thoroughly after handling.
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P284	Wear respiratory equipment.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P311	If inhaled call a poison centre.

2.6 Pictograms:



2.7 Signal Word: Danger

3. COMPOSITION INFORMATION ON INGREDIENTS:

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight	Classification
			EC1272/2008
Fenthion	55-38-9	40-60%	Acute toxicity oral, dermal (Cat 4) H302+H312. Acute toxicity inhalation (Cat 3) H331. STOT RE 1 H372. Aquatic acute 1 H400. Aquatic chronic 1 H410.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES:

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

4.1 Symptoms of Human Poisoning:

Mild intoxication causes headaches, blurred vision, weakness, sweating, mild chest pain, nausea and vomiting. Severe intoxication causes cyanosis (blueness of the skin, as from lack of oxygen), muscular twitching, spasms, miosis (pinpoint pupils) and respiratory paralysis.

4.2 First Aid Measures:

Skin Contact:

Immediately remove contaminated clothing. Wash affected areas with soap and water. Seek medical aid. If advised by doctor or Poisons Information Centre, atropine tablets may be administered. Obtain an emergency supply of atropine tablets 0.6 mg.

Eye Contact:

Hold eyes open and flush immediately with clear, clean running water for at least 15 minutes. Obtain medical attention.

Ingestion:

Wash out mouth with water. Do not induce vomiting. Give a glass of water. Keep patient at rest and seek medical advice immediately. Transport patient to doctor or hospital quickly. If advised by doctor or Poisons Information Centre, Atropine tablets may be administered. Do not attempt to give anything by mouth to a semi-conscious or unconscious person.

Inhalation:

If inhaled, remove to fresh air and keep at rest. Obtain medical advice. If breathing stops or shows signs of failing, start artificial respiration. If advised by doctor or Poisons Information Centre, atropine tablets may be administered.

4.3 Advice to Physician:

Fenthion is an organophosphorus compound, and as such it is a cholinesterase inhibitor. Monitor respiratory, cardiac and central nervous system function. Monitor red blood cell and plasma cholinesterase levels. Administer oxygen if necessary. Watch for pulmonary oedema and delayed neurological symptoms.

4.4 Contra-indications:

Adrenergic derivatives.

Two regimens for initial atropine treatment are currently suggested. In both cases the cessation of the cholinergic symptoms salivation, bronchial secretion, sweating and bradycardia indicates sufficient atropinization. The skin should be dry, the lungs should be clear on auscultation and the heart rate should be in a range of 80 to 100/minute.

Overdoses of atropine have to be strictly avoided, as these can promote heart rhythm disturbances. It is mandatory to allow 5 minutes after each dose for atropine to become fully effective, the next higher dose must not be given earlier and only if the above symptoms are persisting. Regimen 2 currently is advisable. If further atropine treatment is required (taking into account the relatively short effect of carbamates), it should be done by continuous application of 1 – 2 mg/hour. Atropine treatment can be stopped, when the plasma cholinesterase level has returned to above 30% of normal. Survival of patients after severe organophosphorus insecticide poisoning is strongly dependent on effective intensive care treatment, as aspiration pneumonia and multi-organ failure are typically the final causes of death in such cases. Thus, in severe cases with cardiorespiratory failure and resuscitation the above regimens, though doubtlessly effective against the cholinesterase inhibition, may not improve the outcome, because adequate ICU therapy is critical.

4.5 Antidote:

Atropine sulphate, possibly in conjunction with Toxogonin or Obidoxime (PAM). Monitor respiratory, cardiac, and central nervous system function. Monitor red blood cell and plasma cholinesterase levels. Administer oxygen if necessary. Watch for pulmonary oedema and delayed neurological symptoms.

5. FIRE FIGHTING MEASURES:

5.1 Flammability: Not flammable.

5.2 Extinguishing Agents: Water spray, foam, dry chemical, carbon dioxide or sand.

5.3 Firefighting:

Firefighters should wear full protective gear, including self-contained breathing apparatus. Keep unnecessary people away and move all other personnel to windward side of fire. Use water spray to cool fire-exposed containers. Avoid spraying directly into containers due to danger of boil over. Bund area with sand or earth to prevent contamination of drains or waterways. Dispose of fire control water, other extinguishing agents and spillage according to section 13 of this document. Contamination of water bodies should be avoided.

5.4 Special Hazards: No information.

6. ACCIDENTAL RELEASE MEASURES:

6.1 Personal Precautions:

Wear eye goggles and gloves. Avoid breathing vapours or spray drift. Wear a self-contained breathing apparatus.

6.2 Environmental Precautions:

Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay or another absorbent material.

6.3 Spills:

Avoid contact with the spilled material or contaminated surfaces. Extinguish or remove all possible sources of ignition. Do not smoke, eat or drink during the clean-up process. Keep people and animals away and upwind. Contain spill and absorb with earth, sand, clay or another absorbent material. Collect and store in properly labelled drums for safe disposal. Clean floor with a damp cloth and place cloth. Cover and label drums for safe disposal according to Section 13 of this document. Thoroughly ventilate the area after clean-up. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority. Decontaminate tools and equipment used in the clean-up.

7. HANDLING AND STORAGE:

7.1 Handling:

Keep out of reach of children. Product is poisonous if absorbed by skin contact, inhaled or swallowed. Avoid contact with eyes, skin and clothing. Do not inhale spray mist. Wash hands, arms and face thoroughly with soap and water after product use and before eating, drinking or smoking. After each day's use, wash gloves, face shield or goggles and contaminated clothing. Keep away from excessive heat, open flames and other sources of ignition.

7.2 Storage:

Store in closed, original containers in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Keep away from excessive heat, open flames and other sources of ignition.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION:

8.1 Acceptable Daily Intake (ADI): No data available.

8.2 Exposure Limits: TWA for fenthion is 0.2 mg/m³ skin notation (NOHSC).

8.3 Engineering Control Measures: Control process conditions to avoid contact. Use local exhaust ventilation and spark proof equipment during manufacture. Use in a well-ventilated area only.

8.4 Personal Protective Equipment:

Clothing: Wear cotton overalls buttoned to the neck and wrist, a washable hat and impervious footwear. During post-harvest dipping operation wear a full length waterproof apron as well.

Gloves: Wear elbow length PVC gloves.

Eye Protection: Wear eye protection. During mixing or pouring operations or other activities in which eye contact with undiluted product 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.

Respirator: Wear an AS/NZS 1715/1716 approved respirator.

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 work shift. Wash hands during breaks and at the end of the work with soap and water.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Clear brown liquid.

Odour: Mercaptan like odour.

pH: No information available.

Vapour Pressure: No information available.

Solubility: Emulsifies in water.

Specific Gravity: 1.072.

Flash Point: > 38°C (not flammable)

Partition Coefficient (octanol/water): No information available.

10. STABILITY AND REACTIVITY:

10.1 Stability:

The product is stable for two years when stored under normal storage conditions at normal temperatures.

10.2 Conditions to Avoid:

Avoid extreme heat.

11.3 Incompatible Materials:

Insecticides and fungicides which are highly alkaline (basic).

11.4 Decomposition Products:

During fire carbon monoxide, phosphorus pentoxide and sulphur dioxide may be formed.

11. TOXICOLOGICAL INFORMATION:

The active ingredient, fenthion, is an anticholinesterase compound. Symptoms typical of cholinesterase inhibition (for all routes of entry). Acute toxicity based on the formulated product toxicity.

Acute Oral LD50 (rat): 250 mg/kg. Poisonous if swallowed.

Acute Dermal LD50 (rat): For male rats 586 mg/kg, female rats 800 mg/kg.

Acute Inhalation LC50 (rat, 4 hr): 0.5 mg/ℓ air (based on active ingredient). Poisonous by inhalation. High vapour concentrations may be irritating to the respiratory tract and may cause headaches, dizziness, drowsiness, anesthesia, and other central nervous system effects.

Skin Irritation (rabbit): Not known to be an irritant.

Eye Irritation (rabbit): Not known to be an irritant.

Skin Sensitization (guinea pig): Not a skin sensitizer.

Chronic Effects: Causes damage to organs through prolonged or repeated exposure.

Carcinogenicity: No data available.

Mutagenicity: Suspected of causing genetic defects.

Reproductive Hazard: No data available.

12. ECOLOGICAL INFORMATION:

Ecotoxicity is based on the active ingredient toxicity.

Aquatic Toxicity Fish LC50 (96 hr): 0.83 g/ℓ (rainbow trout); 2.7 mg/ℓ (golden orfe). Toxic to fish.

Aquatic Toxicity Daphnia EC50 (48 hr):

0.0057 mg/ℓ (Daphnia magna). Toxic to aquatic invertebrates.

Aquatic Toxicity Algae EC50 (96 hr): 1.79 mg/ℓ (green algae).

Avian Toxicity LD50 (9 days): 7.2 mg/kg (bobwhite quail). Dangerous to birds.

Bee Toxicity LD50: Dangerous to bees.

Biodegradability: Not easily biodegradable.

Bio-accumulation: No data available

13. DISPOSAL CONSIDERATIONS:

Pesticide Disposal:

Do not contaminate crops, grazing, rivers or dams with chemical or used containers. Dispose of waste product as hazardous waste via a licensed disposal contractor to an approved landfill. Do not discharge into drains or sewers.

Package Product Wastes:

Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on-site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 50 cm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

14. TRANSPORT INFORMATION:

UN No.: 3018
Proper Shipping Name: ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC (FENTHION)
Class: 6.1
Packing group: III
Marine pollutant: Yes

Labels:



15. REGULATORY INFORMATION:

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2. Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

16. OTHER INFORMATION:

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.