

MATERIAL SAFETY DATA SHEET

TOKUTHION INSECTICIDE SPRAY

A09385



Bayer CropScience

Effective August 1, 2002

Statement of Hazardous Nature

Hazardous according to criteria of the National Occupational Health and Safety Commission.

COMPANY DETAILS:

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Identification

Product Name

TOKUTHION INSECTICIDE SPRAY

Issued	August 1, 2002	Supersedes	01/04/1998		
UN No.	3017	Hazardous?	Yes	Hazchem	3W
DG Class	6.1	Poison Schedule	S6	Product Code	21516
Sub Risk	3	Packing Group	III	EPG	6C1 / 17

Uses

Agricultural insecticide for the control of those pests indicated on the product label.

Application Methods

Product Descriptor: TOKUTHION
Proper Shipping Name: ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE (contains prothiofos)
Chemical Characterisation: 500 g/L prothiofos
0-(2,4-dichlorophenyl)O-ethyl-S propyl-phosphorodithioate
Chemical Group: organophosphate

Physical Description/Properties

Form: liquid
Colour: clear brown
Odour: aromatic
Change in Physical State: Initial boiling point: approx. 140 degrees C
Density (kg/L): approx. 1.072 at 20 degrees C
Vapour Pressure: > 1x10⁻⁵ mbar at 20 degrees C (active ingredient)
14 mbar at 20 degrees C
77 mbar at 50 degrees C
100 mbar at 55 degrees C
Viscosity: 4.0 mm/s

MATERIAL SAFETY DATA SHEET

TOKUTHION INSECTICIDE SPRAY

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Solubility in Water:	emulsifiable
pH Value (10% in water):	not established
Flash Point (closed cup):	28 degrees C
Ignition Temperature:	420 degrees C
Explosive Limits:	not established

Ingredients

Ingredient	CAS Nr	Proportion
Prothiofos	34643-46-4	500 g/L
Emulsifier		Med
Xylene	1330-20-7	High

Proportion: (% weight/weight): Med = 10-29%; High = 30-60%

Health Hazard Information

Health Effects

No adverse effects are expected if this product is used in accordance with the label. Most cases of organophosphate poisoning result from skin absorption due to inadequate protection during pouring/mixing or application. Organophosphates act by inhibiting acetylcholinesterase. Some symptoms of overexposure that can arise if the product is mishandled are:

Mild: headache, blurred vision, weakness, giddiness, sweating, mild chest pain, nausea and vomiting.

Severe: cyanosis, muscular twitching, spasms, miosis and respiratory paralysis. These symptoms commence from one to three hours after excessive exposure.

Acute: unlikely to cause poisoning.

Chronic: Animal studies show no evidence of oncogenic effect or carcinogenic or teratogenic potential.

Swallowed

Ingestion of large amounts may cause poisoning.

Skin

Not a skin irritant

Eye

Moderate eye irritant

Inhaled

Unlikely to cause poisoning.

MATERIAL SAFETY DATA SHEET

TOKUTHION INSECTICIDE SPRAY

A09385



Bayer CropScience

First Aid

If poisoning occurs contact a doctor or Poisons Information Centre (telephone 13 11 26).

Swallowed

If swallowed, induce vomiting preferably using Ipecac Syrup APF and give one atropine tablet every 5 minutes until dryness of the mouth occurs.

Skin

If poisoned by skin absorption or through lungs, remove any contaminated clothing, wash skin thoroughly and give atropine tablets as above. Get to a doctor or hospital immediately.

Eye

If in eyes, hold eyes open and flood with water for at least 15 minutes.

Advice to Doctor

Apply basic aid and decontamination procedures. Treat symptomatically and if necessary apply artificial respiration and administer antidote.

Antidote: Atropine sulfate at 5-10 minute intervals until dryness of the mouth occurs. This will relieve the muscarinic manifestations. Atropine should not be given to a cyanosed patient. In cases of severe poisoning (respiratory depression or muscle twitching) administer pralidoxime (preferably less than 48 hours after exposure) to relieve the nicotinic effects.

Contraindications: Never give patient morphine, theophylline or theophylline-ethylenediamine. Large amounts of intravenous fluids are generally contraindicated because of the threat of pulmonary oedema.

Precautions for Use

Exposure Standards

NOHSC exposure standards have not been assigned for the active ingredient.

Xylene TWA 350 mg/cubic metre

Engineering Controls

Not applicable.

Personal Protection

Personal Protective Measures:

Product and spray are poisonous if absorbed by skin contact, inhaled or swallowed. Repeated minor exposure may have a cumulative poisoning effect. Avoid contact with eyes, skin and clothing. Do not inhale spray mist. Obtain an emergency supply of atropine sulfate tablets 0.6 mg.

Personal Protective Equipment:

When preparing the spray wear elbow-length PVC gloves.

MATERIAL SAFETY DATA SHEET

TOKUTHION INSECTICIDE SPRAY

A09385



Industrial Hygiene:

If clothing becomes contaminated with product or spray, remove clothing immediately. If product or spray on skin, immediately wash the area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use wash contaminated clothing and protective equipment with detergent and water.

Flammability

Protection Against Fire:

Product is stable. Avoid strong oxidising agents. Keep away from sources of ignition.

Not flammable under normal conditions of use.

Safe Handling Information

Storage

Keep out of reach of children. Store in the tightly closed original container in a dry, well ventilated area, as cool as possible. Do not store for prolonged periods in direct sunlight. Do not store near any material intended for use or consumption by humans or animals.

Transport

Classification according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code)

Shipping name:

ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE (prothiophos)

Packing group: III UN No: 3017

DG Class: 6.1 Sub Risk: 3 Hazchem: 3W EPG 17

Dangerous Goods / Hazardous Substances Regulation

This product is subject to the following regulations:

- Australian Code for the Transport of Dangerous Goods by Road and Rail
- State/Territory Storage of Dangerous Goods Regulations
- State/Territory Hazardous Substances Regulations
- Standard for the Uniform Scheduling of Drugs and Poisons

Spills

Observe all precautions for use including use of rubber boots or rubber overshoes, when cleaning up spills. Alert and evacuate all personnel from the immediate area. Prevent spill from spreading or entering waterways or drains. Take up with absorbent material such as sawdust, peat or chemical binding agent. Fill material along with any contaminated soil etc. into sealable containers. Clean affected area with an aqueous detergent and a small amount of water. Absorb this with hydrated lime and place in a sealable drum. Spread hydrated lime over the affected area. On completion of clean-up remove and wash all protective clothing and equipment with detergent and water. Any heavily contaminated clothing should be placed in a plastic garbage bag and placed in a sealable drum. Do not smoke, eat or drink during the clean-up operation.

MATERIAL SAFETY DATA SHEET

TOKUTHION INSECTICIDE SPRAY

A09385



Disposal

1) After intended use:

Triple or (preferably) pressure rinse container before disposal. Add rinsings to the spray tank. Do not dispose of undiluted chemicals on site. Break, puncture, crush and bury rinsed container in a local authority landfill (check local statutory requirements). If not available, bury the container below 500 mm in a marked disposal pit specifically set up for this purpose, clear of waterways, vegetation and roots. Empty container and product should not be burnt.

2) After spill or accident:

Dispose of sealed containers at an approved local waste disposal site.

Fire/Explosion Hazard

Dangerous Decomposition or Combustion Products:

Thermal Decomposition:

Hazardous polymerisation will not occur.

Hazardous Decomposition Products:

If involved in a fire: hydrochloric acid gas, phosphorus pentoxide, sulphur dioxide

Hazardous reactions: none

Extinguishing Media:

Water fog (if unavailable fine water spray may be used)

Further Information:

Special firefighting procedures: Wear full protective clothing and self-contained breathing apparatus.

Other Information

Information on Toxicity

LD50 oral (ingestion) - Rat: 1500 - 2100 mg/kg (Bayer) i.e. harmful

LD50 dermal (skin) - Rat: >5000 mg/kg (Bayer) i.e. practically non-toxic

Information on Ecological Effects

Do NOT contaminate ponds, waterways or drains with the chemical or used container.

Toxicity to fish: (active ingredient)

LC50: 6 - 20 mg/L (96 h); Goldfish (*Carassius auratus*)

LC50: 4 - 10 mg/L (96 h); Carp (*Cyprinus carpio*)

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DISCLAIMER

This MSDS summarises 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 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 this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.