Section 1 - Identification of The Material and Supplier

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Emergency: 1800 033 111

Chemical nature:	Hexythiazox is a thiazole derivative.
Trade Name:	**Sabakem Hexythiazox 100EC Miticide**
APVMA Code:	**69165**
Creation Date:	**August, 2008**
This version issued:	**June, 2024** and is valid for 5 years from this date.
Emergency telephone:	**Poisons Information Centre 13 11 26 (24 hours)**

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

ADG Classification: Dangerous Goods Class 3, FLAMMABLE LIQUIDS.
See details in Section 14 of this SDS.

Classification of the substance or mixture:

Flammable Liquid Category 3
Acute Dermal Toxicity Category 4
Acute Inhalation Toxicity Category 4
Specific Target Organ Toxicity (Single Exposure) Category 3
Skin Irritation Category 2
Eye Irritation Category 2A
Aspiration hazard Category 1



The following health hazard categories fall outside the scope of the Workplace Health and Safety Regulations

Acute Aquatic Toxicity Category 2
Chronic Aquatic Toxicity Category 2

GHS Signal word: DANGER

HAZARD STATEMENT(S):

H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H312: Harmful in contact with skin.
H315: Causes skin irritation.
H319 Causes serious eye irritation.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.
H401: Toxic to aquatic life.

PRECAUTIONARY STATEMENT(S):

PREVENTION

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof equipment.
P242: Use non-sparking tools.
P243: Take precautionary measures to prevent static discharges.
P261: Avoid breathing fumes, mists, vapours, or spray.
P264: Wash contacted areas thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor.
P312: Call a POISON CENTRE or doctor if you feel unwell.
P302 + P352: IF ON SKIN: Wash with plenty of water.
P303+P361+P353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321: Specific treatment (see the label).
P331: Do NOT induce vomiting.
P332+P313: If skin irritation occurs: Get medical advice.
P337+P313: If eye irritation persists: Get medical advice.
P362 + P364: Take off contaminated clothing and wash it before reuse.
P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog. Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal foam can be used.
P391: Collect spillage.

STORAGE

P402+P404: Store in a dry place. Store in a closed container.
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P403+P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.

DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

Section 3 - Composition/Information on Ingredients

Ingredients	CAS No	Conc. (% w/v)
Hexythiazox	78587-05-0	10.0
Xylene	1330-20-7	75.3

Other components are not considered hazardous in this formulation and therefore are not required to be disclosed according to the WHS Regulations.
This is a commercial product whose exact ratio of components may vary slightly.

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: If symptoms of poisoning become evident, contact a Poisons Information Centre, or call a doctor at once. Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. DO NOT allow victim to move about unnecessarily. Symptoms of pulmonary oedema can be delayed up to 48 hours after exposure.

Skin Contact: Quickly and gently blot away excess liquid. Wash gently and thoroughly with warm water (use nonabrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye Contact: Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 20 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

First Aid Facilities: Eyewash and normal washroom facilities. Safety deluge showers should, if practical, be provided near to where this product is being used.

Major Health Hazards: harmful by inhalation and in contact with skin, irritating to eyes and skin.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Any explosion will likely spread the fire to surrounding materials. Water spray may be used to cool drums involved in a fire, reducing the chances of an explosion. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. Vapours from this product are heavier than air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures. They may also flash back considerable distances.
Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Flammability Class: Flammable Liquid Category 3 (GHS); Flammable (AS1940)

Suitable Extinguishing Media: Carbon dioxide, dry powder, alcohol-resistant foam. Try to contain spills, minimise spillage entering drains or water courses.

Special Protective Equipment and Precautions for Fire Fighters: There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

Hazchem Code: •3Y

Section 6 - Accidental Release Measures

Environmental precautions: In the event of a major spill, prevent spillage from entering drains or water courses with absorbent material. Because of the environmentally hazardous nature of this product, special care should be taken to restrict release to waterways or drains.

Methods and materials for containment and cleaning up: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade.
Shut off all possible sources of ignition and stop leak if safe to do so and contain spill. Absorb onto sand, vermiculite or other suitable absorbent material. If spill is too large or if absorbent material is not available, try to create a dike to stop material spreading or going into drains or waterways. Avoid using sawdust or other combustible material. Any electrical equipment should be non-sparking. Any equipment capable of building an electrostatic charge should be

electrically grounded. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage and dispose of promptly. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal.

Personal precautions, protective equipment and emergency procedures: Wear full protective clothing including eye/face protection. All skin areas should be covered. As a minimum, wear overalls, goggles and gloves. No special recommendations for clothing materials. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Refer to section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed.
Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Remove all sources of ignition and if a significant quantity of material enters drains, advise emergency services.

Section 7 - Handling and Storage

Precautions for Safe Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Conditions for Safe Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight and make sure that surrounding electrical devices and switches are suitable. Check containers periodically for leaks. Containers should be kept closed in order to minimise contamination and possible evaporation. Some liquid preparations settle or separate on standing and may require stirring before use.

If you keep more than 10000kg or L of Dangerous Goods of Packaging Group III, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

Exposure Standards:

SWA Exposure Limits	TWA	STEL
Xylene	350 mg/m^3 (80 ppm)	655 mg/m^3 (150 ppm)

Engineering Controls: Ensure adequate ventilation of the working area to maintain airborne concentration levels below the exposure standard

Respiratory Protection: This product should only be used in a well-ventilated area. If ventilation is inadequate, suitable respiratory protection should be worn, consult AS/NZS 1715 and AS/NZS 1716 for further information.

Eye and Face Protection: Eye protection such as protective glasses or goggles must be worn when product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used. See Australian/New Zealand Standard Industrial Eye Protection: AS1336 and AS/NZS 1337 for more information.

Skin Protection: PVC or rubber gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered. Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard Occupational Protective Clothing: AS/NZS 4501 and Occupational Protective Footwear: AS/NZS2210 for more information.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Amber coloured liquid.
Odour:	Strong xylene odour.
Boiling Point:	Not available.
Flash point:	24°C
Upper Flammability Limit:	7.5%
Lower Flammability Limit:s	1%
Freezing/Melting Point:	No specific data. Liquid at normal temperatures.
Volatiles:	Slowly volatile at 100°C, but 83% volatile at higher temperatures.
Vapour Pressure:	No data. Active has very low vapour pressure at room temperatures.
Vapour Density:	No data.
Specific Gravity:	0.904
Water Solubility:	Emulsifiable.
pH:	No data.
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	No data.
Coeff Oil/water Distribution:	2.53 (Hexythiazox) (log P octanol/water)
Autoignition temp:	No data.

Section 10 - Stability and Reactivity

Possibility of Hazardous Reactions: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf-life properties. This product will not undergo polymerisation reactions.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Keep away from sources of sparks or ignition. Handle and open containers carefully. Any electrical equipment in the area of this product should be flame proofed. Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: strong oxidising agents.

Hazardous Decomposition Products: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. May form hydrogen chloride gas, other compounds of chlorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Section 11 - Toxicological Information

Acute toxicity: Product is harmful in contact with skin and if inhaled. Product causes toxicity via dermal and inhalation routes according to available data.
Following is the acute toxicity data available for active constituent Hexythiazox:
Acute oral toxicity - LD50 (Rat) > 5,000 mg/kg
Acute dermal toxicity - LD50 (Rabbit) > 5,000 mg/kg
Acute inhalation toxicity - LC50 (Rat) > >2mg/L, 4hr

Skin Corrosion/Irritation: Causes skin irritation. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Serious Eye Damage/Irritation: Causes serious eye irritation. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

Respiratory or Skin Sensitisation: Based on classification principles, the classification criteria are not met.

Germ Cell Mutagenicity: Based on classification principles, the classification criteria are not met. Data indicates no mutagenic effects.

Carcinogenicity Based on classification principles, the classification criteria are not met.
As per IARC, Xylene is Class 3 - unclassifiable as to carcinogenicity to humans.

Reproductive Toxicity: Based on classification principles, the classification criteria are not met. Data indicates no teratogenic effects.

Specific Target Organ Toxicity (STOT)—single exposure: Product may cause respiratory irritation.

Specific Target Organ Toxicity (STOT)—repeated exposure: Based on classification principles, the classification criteria are not met.

Aspiration Hazard: May be fatal if swallowed and enters airways.

Chronic Health Effects: No data for health effects associated with long term exposures.

Symptoms related to exposure: High vapour concentrations of the solvent while handling the concentrate are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, and may have other central nervous system effects. Significant oral exposure is considered to be unlikely. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Additional toxicological information:
The ADI for Hexythiazox is set at 0.03mg/kg/day. The corresponding NOEL is set at 3mg/kg/day (Data from Australian ADI List, Dec 2012).

Section 12 - Ecological Information

Ecotoxicity: Toxic to aquatic life with long lasting effects.
Toxicity data on Hexythiazox is available:
Acute Toxicity LC50 (rainbow trout) >300mg/L, 96 hr; LC50 (bluegill sunfish): 11.6mg/L, 96 hr; EC50 (daphnia): 0.24mg/L, 48 hr
Acute Toxicity (other organisms): LD50 (mallard duck): >2510mg/kg; LD50 (bee) >200 µg/bee
Not toxic to bees.

Persistence and Degradability: Half-life in soil is typically 8 days. This product is biodegradable.

Bioaccumulative Potential: It will not accumulate in the soil or water or cause long term problems.

Mobility in Soil: No further relevant information available.

Section 13 - Disposal Considerations

Disposal: Special help is available for the disposal of Agricultural Chemicals. The product label will give general advice regarding disposal of small quantities, and how to cleanse containers. However, for help with the collection of unwanted rural chemicals, contact ChemClear 1800 008 182 http://www.chemclear.com.au/ and for help with the disposal of empty drums, contact DrumMuster http://www.drummuster.com.au/ where you will find contact details for your area.

Section 14 - Transport Information

Road and Rail Transport: Classified as Dangerous Goods Class 3, FLAMMABLE LIQUID
UN Number: 1993, FLAMMABLE LIQUID, N.O.S. (Contains Xylene).
ADG 7 specifies a Limited Quantity value of 5 L for this class of product.

Marine Transport:
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

UN Number:	1993
Proper Shipping Name or Technical Name:	FLAMMABLE LIQUID, N.O.S (CONTAINS XYLENE)
Transport Hazard Class:	3

Packaging Group:	III
IMDG EMS Fire:	F - E
IMDG EMS Spill:	S - D
Environmental hazards:	Yes. Marine Pollutant: Hexythiazox
Additional Information:	The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.

Air Transport:
Classified as Dangerous Goods Class 3, FLAMMABLE LIQUID
UN Number: 1993, FLAMMABLE LIQUID, N.O.S. (Contains Xylene).

Section 15 - Regulatory Information

APVMA Approval no.: 69165

Poison schedule (SUSMP): Schedule 6.

AICIS: All the constituents of this material are either listed on the Australian Inventory of Industrial Chemicals (AIIC), not required due the nature of the chemical as they are excluded as an industrial chemical or have been assessed under the Industrial Chemicals Act 1989 as amended.

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Issue Date: June 2024
Reason(s) for issue: Five-year update and updated the GHS hazard classification. Revised Primary SDS and updated to latest GHS requirements.

Key abbreviations or acronyms:
ADG Code - Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICIS – Australian Industrial Chemicals Introduction Scheme (formerly NICNAS)
AIIC - Australian Inventory of Industrial Chemicals
APVMA – Agricultural Pesticides and Veterinary Medicines Australia
CAS number - Chemical Abstracts Service Registry Number
GHS - Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition) 2017
Hazchem Code - Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC - International Agency for Research on Cancer
Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (June 2023)
STEL - Short term exposure limit means the average airborne concentration of a substance calculated over a 15 minute period. The STEL should not be exceeded at any time during a normal eight hour working day.
SUSMP - Standard for the Uniform Scheduling of Medicines & Poisons
SWA - Safe Work Australia, formerly ASCC and NOHSC
TGA – Therapeutic Goods Australia
TWA - Time-weighted average means the average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.
UN Number - United Nations Number
WHS – Workplace Health and Safety

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document “Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice” (June 2023) and GHS Revision 7