



Grow Choice Pty Ltd
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Safety Data Sheet: MITE MASTER 290 INSECTICIDE

1. Product identifier & identity for the chemical

Product Identifier	MITE MASTER 290 INSECTICIDE
Active Constituent	290 g/L OMETHOATE (an Anticholinesterase Compound)
Other means of Identification	Group 1B INSECTICIDE Grow Choice product code number: 2005 AVPMA registered number: 61682
Recommended use of the chemical and restrictions on due	For the control of redlegged earth mite as a barrier spray.
Suppliers name, address and phone number:	Grow Choice Pty Ltd 113 Fitzroy Street TAMWORTH NSW 2340 Phone: 02 6766 3979 1800 817 676 Fax: 02 6766 2922 Email: admin@growchoice.com.au
Emergency phone #	In Case Of Emergency Dial 000
Poisons Information Centre	Phone: 13 11 26 and speak to a Poisons Information Specialist. Fax: +61 2 9845 3597 http://www.chw.edu.au/poisons/contact.htm

2. Hazard Identification

- Classified as **HAZARDOUS** in accordance with the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004) 3rd Edition and the Globally Harmonized System of Classification and Labelling of Chemicals (the GHS).
- Considered non-dangerous for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)
- Considered **DANGEROUS** for transport by sea and air in accordance with the IMDG Code 37-14 (refer Section 14)

GHS classification	H301: Acute toxicity - category 3 Toxic if swallowed H312: Acute toxicity - category 4 Harmful in contact with skin H226 Flammable liquid and vapour – category 3 . Flammable Liquids H400: Hazardous to the aquatic environment (acute) - category 1 Very toxic to aquatic life
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GHS symbol



Signal word **DANGER**

Prevention Statements.	P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P264: Wash hands and any body part exposed to product thoroughly with soap and water after handling. P270: Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing Manufacturer/supplier or the competent authority to specify type of equipment P273 Avoid release to the environment.
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Response Statements	P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330: Rinse mouth P302 + P352 IF ON SKIN: Wash with plenty of soap and water P312 Call a POISON CENTER or doctor/physician if you feel unwell P363 Wash contaminated clothing before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol- resistant foam for extinction. P391 Collect spillage
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Storage and Disposal	P405 Store locked up. (refer Section 7) P403 + P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container in accordance with local/regional/national/international Regulations.
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3. Composition/information on ingredients

Chemical ingredients: CAS number and other unique identifiers: Concentration of ingredients:	Component	CAS No	Proportion (w/v)
	Omethoate	1113-02-6	290 g/L
	1-methoxy-2-propyl acetate	108-65-6	750 g/L

4. First Aid Measures

If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor

Swallow	Wash out mouth with water. Keep patient at rest and seek medical advice immediately, as above. 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.
Eye:	Rinse eyes immediately with clean water for at least 15 minutes and obtain medical aid.
Skin:	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.
Inhaled	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..
First Aid/Facilities	Provide eyewash and safety shower facilities in the workplace. Obtain an emergency supply of atropine tablets 0.6 mg. In Case Of Emergency Dial 000 and/or Poisons Information Centre: Phone: 13 11 26 and speak to a Poisons Information Specialist.
Advice to doctor	Mite Master contains omethoate, which is an organophosphorus compound, and as such it is a cholinesterase inhibitor. Symptoms of poisoning: Mild intoxication causes headache, 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 Onset of symptoms may be delayed Cholinesterase inhibition sometimes persists for several weeks. Treatment: Basic aid, decontamination, symptomatic treatment and if necessary administration of antidote. Antidote: Atropine sulphate, possibly in conjunction with Toxogonin or obidoxime (PAM) Monitor respiratory, cardiac and central nervous system functions. Monitor red blood cell and plasma cholinesterase levels. Administer oxygen if necessary. Watch for pulmonary oedema and delayed neurological symptoms. Contraindications: Adrenergic derivatives.

5. Fire Fighting Measures

Suitable extinguishing media	Waterspray, foam, dry chemical, carbon dioxide, sand.
Specific hazards arising from the chemical	In a fire, hydrogen cyanide, carbon monoxide, phosphorus pentoxide, Combustion products sulphur dioxide and nitrogen oxides may be formed.
Special protective equipment and precautions for fire fighters	The product is a flammable liquid, flash point >430 C. Above this temperature, explosive vapor/air mixtures may be formed. Firefighters should wear full protective gear, including self-contained breathing apparatus (AS/NZS 1715/1716). 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 or other extinguishing agent and spillage safely later.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	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 cleanup process. Personnel involved in cleanup should wear protective clothing and equipment as described in Section 8 – PERSONAL PROTECTION. Keep people and animals away and upwind. Cover and label drums for safe disposal. Thoroughly ventilate and area after cleanup. Deal with all spillages immediately.
Environmental precautions	Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay, or other absorbent material. Collect and store in properly labelled drums for safe disposal. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.
Methods and materials for containment and cleaning up	Clean floor with a damp cloth and place cloth in drum. Decontaminate tools and equipment used in the cleanup.

7. Handling and Storage

Precautions for safe handling	Product and spray are poisonous if absorbed by skin contact, inhaled or swallowed. Will irritate the eyes. Avoid contact with eyes and skin. Do not inhale spray mist. If clothing becomes contaminated with product remove clothing immediately. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with 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 gloves, face shield and contaminated clothing. Keep away from excessive heat, open flames and other sources of ignition. Take precautionary measures against static discharges.
Conditions for safe storage, including any incompatibilities:	Keep out of reach of children. Store in the closed, original container 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. Avoid formation of aerosol. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge

8. Exposure controls/personal protection

Control parameters – exposure standards, biological monitoring

The ADI (Acceptable Daily Intake) for Omethoate is set at 0.0004 mg/kg/day. The corresponding NOEL (No-observable-effect-level) is set at 0.04 mg/kg/day. A 2 year rat dietary study, based on inhibition of cholinesterase activity at 0.13 mg/kg bw/d and above.

Data from the Australian ADI List June 2014

Components with workplace control parameters:

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2-methoxy-1-propyl ace-	108-65-6	TWA	50 ppm 274 mg/m ³	AU OEL
		Further information: Skin absorption STEL	100 ppm 548 mg/m ³	AU OEL
		Further information: Skin absorption		

Appropriate engineering controls

Engineering controls Control process conditions to avoid contact. Use local exhaust ventilation during manufacture and spark proof equipment. The vapour of the solvent in this product may travel considerable distances to a source of ignition and flash back. Use this product in a well-ventilated area only.

Personal protective equipment (PPE):

When opening the container, preparing the spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow length PVC chemical resistant and face shield or goggles.

When using the prepared spray cotton overalls buttoned to the neck and wrist and a washable hat and optional once chemical is prepared for use, elbow length PVC chemical resistant and face shield or goggles if protected from spray drift/contamination.

Face and Eye Protection: Face shield or goggles.

Clothing: Cotton overalls buttoned to the neck and wrist (or equivalent clothing) and a washable hat.

Gloves: Elbow-length chemical resistant PVC gloves.

Respiratory: If airborne concentrations are likely to exceed the exposure standards above or if exposed to dust, an AS/NZS 1715/1716 approved respirator should be worn.

Recommended to use Australian and New Zealand Standard PPE:

Overalls	AS 3765, Clothing for protection against Hazardous chemicals
Gloves:	AS/NZS 2161, Industrial safety gloves and mittens (not electrical and medical gloves)
Goggles and face shield	As/NZS 1337, Eye protectors for industrial applications.
Footwear	AS/NZS 2210, Occupational protective footwear
Respirators	AS NZS 1715 Selection, Use and Maintenance of Respiratory Protective Devices AS/NZS 1716, Respiratory Protective Devices

Requirements Concerning Training

Check State and/or Territory regulations that require people who use pesticides in their job or business to have adequate training in the application of the materials.

9. Physical and chemical properties

Appearance	Clear colourless liquid
Odour	Aromatic, chemical
pH (1% deion. Water);	3.2 to 4.2 (10% in water)
Melting point	No data available.
Boiling point/boiling range	146 °C (1,000 hPa)
Flash point	>430 C
Evaporation rate	Not determined
Flammability	LEL: 1.5% v/v, UEL: 7.0% v/v
Behaviour in water	Soluble
Specific Gravity	1.05 at 20°C
Auto ignition temperature	332°C (omethoate; 333°C (solvent)
Partition coefficient (octanol/water)	Omethoate: Log Pow=- 0.74 at 200C Solvent: Log Pow= 0.43 (calculated)
Specific gravity	1.05 at 20°C
Upper explosion limit	7.0 % (V)
Lower explosion limit	1.5 % (V)
Relative density	1.04 (20°C)
Density	1 g/cm ³

10. Stability and Reactivity

Reactivity	This product is unlikely to react or decompose under normal storage conditions. Contact the supplier for advice on shelf life properties if concerned.	
Chemical stability	Stable under normal conditions of use	
Conditions to avoid	This product should be kept in a cool place, preferably below 30°C. Keep away from heat, flames and sparks. Keep away from sources of sparks or ignition. 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.	
Incompatible materials and possible hazardous reactions	Acids, bases, oxidising agents, strong oxidising agents.	
Hazardous decomposition products	In a fire, hydrogen cyanide, carbon monoxide, phosphorus products	pentoxide, sulphur dioxide and nitrogen oxides may be formed.

11. Toxicological information

Information on routes of exposure	The active ingredient in Mite Master, omethoate, is an anticholinesterase compound. Symptoms typical of cholinesterase inhibition (for all routes of entry):	
Symptoms related to exposure	<p>Mild cases Headache, blurred vision, weakness, sweating, mild chest pain, nausea and vomiting. Severe cases Cyanosis (blueness of the skin, as from lack of oxygen), muscular twitching, spasms, miosis (pinpoint pupils) and respiratory paralysis. These symptoms commence from one to three hours after excessive exposure.</p>	
Numerical measures of toxicity	No data available	
Immediate, delayed and chronic health effects from exposure	Inhalation	Poisonous by inhalation.
	Skin contact	Poisonous if absorbed by skin contact. May defat the skin. Eye contact Irritating to the eyes.
	Ingestion	Poisonous if swallowed.
Exposure Levels	<p>ANIMAL TOXICITY DATA</p> <p>Acute</p> <p>Oral toxicity LD50 rat: approximately 100 mg/kg (similar product)</p> <p>Dermal toxicity LD50 rat: approximately 1000 mg/kg (similar product)</p> <p>Inhalation toxicity LC50 (4 h) rat: approximately 0.3 mg/L air (aerosol) (omethoate active ingredient)</p> <p>Skin irritation Nonirritant (rabbit) (similar product)</p> <p>Irritation to mucous Irritating (rabbit) (derived from ingredient data) Membranes</p> <p>Sensitisation Omethoate is a skin sensitiser (guinea pig)</p> <p>Chronic: Repeated exposure may cause allergic disorders. Repeated minor exposure may have a cumulative poisoning effect. The main health effects from repeated exposure would be toxic symptoms of cholinesterase inhibition as described above. Animal studies with omethoate have shown no evidence of oncogenic effect, no evidence of carcinogenic effects and no teratogenic potential.</p> <p>The long term effects in animals noted for the solvent, 1-methoxy-2-propyl acetate, were headaches, dizziness and possible nausea. The solvent was not mutagenic in the Ames test, and did not cause teratological or other developmental effects.</p>	
Interactive effects	Not known	
Data limitations	Not known	

12. Ecological information

Ecotoxicity	Ecotoxicity
Persistence and degradability	Omethoate: Fish toxicity: LC50: 30 mg/L (96 h); golden orfe (<i>Leuciscus idus</i>) LC50: 9.1 mg/L (96 h); trout (<i>Oncorhynchus mykiss</i>)
Bio accumulative potential	Aquatic invertebrate toxicity: EC50: 0.022 mg/L (48 h); <i>Daphnia magna</i> Algae toxicity: IC50: 167.5 mg/L (72 h); green algae (<i>Scenedesmus subspicatus</i>) Bird toxicity: LD50: 79.7 mg/kg; male Japanese quail LD50: 83.4 mg/kg; female Japanese quail
Mobility in soil	This product is very toxic to aquatic organisms. This product is toxic to bees. This product is biodegradable. It will not accumulate in the soil or water or cause long term problems. Very toxic to aquatic invertebrates. Dangerous to bees. DO NOT contaminate streams, rivers or waterways with Folimat 800 or the used containers.

13. Disposal considerations (cont. page 5)

Safe handling and disposal methods	Disposal of product: On site disposal of the concentrated product is not acceptable. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, approach local authorities who
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Disposal of any contaminated packaging

hold periodic collections of unwanted chemicals (ChemClear®).

Environmental regulations**Disposal of Container:**

Do not use this container for any other purpose. Triple rinse containers, add rinsate to the spray tank, then offer the container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. drumMUSTER is the national program for the collection and recycling of empty, cleaned, non-returnable crop production and on-farm animal health chemical containers. If the label on your container carries the drumMUSTER symbol, triple rinse the container, ring your local Council, and offer the container for collection in the program. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, puncture or shred and bury containers in local authority landfill. If no landfill is available, bury the containers below 500mm 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.

Omethoate has a relatively high mobility in soil but is very rapidly persistence, metabolised. DT50 is only a few days. The main metabolite is carbon degradability, dioxide. Aged leaching studies revealed that metabolites have only a mobility low leaching potential.

14. Transport information (cont. page 6)**General Transport Information**

It is considered good practice not to transport agricultural chemical products with food, food related materials and animal feed products.

Land

Considered **DANGEROUS** for road and rail transport by the Australian Code for the Transport of Dangerous Goods Road and Rail (August 2014 edition)

Sea and Air

Considered **DANGEROUS** for transport by sea and air in accordance with the IMDG Code 37-14

UN number**ADG classification****Proper shipping name**

"Dangerous good" for transport by road or rail according to the Australian Code for the Transport of

Transport hazard class(es)

Dangerous Goods by Road and Rail – ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE (contains omethoate, 1-methoxy-2-propyl acetate), Class 6.1 (3), UN 3017, Packing

Packing group

Group III

Environmental hazards

SUSDP classification:

Schedule 6 (Standard for the Uniform Scheduling of Drugs and

Special precautions during transport

Poisons)

Hazchem Code

ADG Code: 3017,

ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE

Hazchem Code: •3W

Special Provisions: 61, 223, 274 Limited quantities: ADG 7 specifies a Limited Quantity value of 5 L for this class of product.

Dangerous Goods Class: Class 6.1: Toxic Substances. Sub Risk: Class 3, Flammable liquids.

Packaging Group: III Packaging Method: P001, IBC03 Class 6 Toxic Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids where the Flammable Liquid is nitromethane), 5.1 (Oxidising Agents where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides where the Toxic Substances are Fire Risk Substances), 8 (Corrosive Substances where the Toxic Substances are cyanides and the Corrosives are acids), Foodstuffs and foodstuff empties.

They may however be loaded in the same vehicle or packed in the same freight container with Classes, 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Toxic Gases), 3 (Flammable liquids, except where the flammable liquid is nitromethane), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents except where the Toxic Substances are Fire Risk Substances), 5.2 (Organic Peroxides except where the Toxic Substances are Fire Risk Substances), 7 (Radioactive Substances), 8 (Corrosive Substances except where the Toxic Substances are cyanides and the Corrosives are acids), 9 (Miscellaneous Dangerous Goods)

International Regulation

UNRTDG

UN number : UN 3017

Proper shipping name : ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE

(omethoate, 1-methoxy-2-propyl actate)

Class : 6.1

Subsidiary risk : 3

Packing group : II

Labels : 6.1 (3)

IATA-DGR

UN/ID No. : UN 3017

Proper shipping name : Organophosphorus pesticide, liquid, toxic, flammable (omethoate, 1-methoxy-2-propyl actate)

Class : 6.1

Subsidiary risk : 3

Packing group : II

Labels : Toxic, Flammable Liquids

Packing instruction (cargo aircraft) : 662

Packing instruction (passenger aircraft) : 654

IMDG-Code

UN number : UN 3017
 Proper shipping name : ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC,
 FLAMMABLE
 (omethoate, 1-methoxy-2-propyl actate)
 Class : 6.1
 Subsidiary risk : 3
 Packing group : II
 Labels : 6.1 (3)
 EmS Code : F-E, S-D
 Marine pollutant : no
 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
 Not applicable for product as supplied.

National Regulations

ADG
 UN number : UN 3017
 Proper shipping name : ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC,
 FLAMMABLE
 (omethoate, 1-methoxy-2-propyl actate)
 Class : 6.1
 Subsidiary risk : 3
 Packing group : II
 Labels : 6.1 (3)

15. Regulatory information

Poisons Schedule number	Poison Schedule number: S6
Safety, health and environmental regulations specific for the product in question	KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING IMPORTANT: READ THIS LEAFLET BEFORE USING THIS PRODUCT

This product is registered with the Australian Pesticides and Veterinary Medicines Authority (APVMA)
 Approval No: **61682 / 0107**

16. Other information

Date of Review	This Safety Data Sheet (SDS) was reviewed 18 January 2017 and replaces the Safety Data Sheet dated 20 October 2016.
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Acronyms:

AVPMA: Australian Pesticides and Veterinary Medicines Authority.
 GHS: Globally Harmonised system of Classification and Labelling of chemicals
 HSIS: Hazardous Substances Information System
 NOHSC: National Occupational Health and Safety Commission
 CAS No.: unique numerical identifier assigned by Chemical Abstracts Service (division of the American Chemical Society)
 STEL: Exposure standard - short term exposure limit.
 AS/NZS: Australian Standards and New Zealand Standards for Personal protective equipment
 ADI: Acceptable Daily Intakes For Agricultural And Veterinary Chemicals
 ADG: Australian Dangerous Goods
 IMDG: International Maritime Code of Dangerous Goods
 IATA: International Air Transport Association

End of SDS

DISCLAIMER:

This SAFETY DATA SHEET has been developed according to the Work Health and Safety Regulations (WHS Regulations) Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals December 2011. The data, information and recommendations herein ("information") are represented in good faith and believed to be correct as of the date hereof. The purpose of this SAFETY DATA SHEET is to describe product in terms of their safety requirements. Grow Choice Pty Ltd makes no representation of merchantability, fitness for a particular purpose of application, or of any other nature with respect to the information or the product to which the information refers ("the product"). The information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purpose prior to the use of the product. The physical data shown herein are typical values based on the material tested. These values should not be construed as a guaranteed analysis of any specific lot or as guaranteed specification for the product or specific lots thereof.

Due care should be taken to make sure that the use or disposal of this product and/or its packaging is in compliance with Relevant Federal, State and Local Government regulations.