


ADAMA DIMETHOATE

Reg. no. L11055 Act/Wet 36 of/van 1947
N-AR 2165

**READ ATTACHED PACKAGED LEAFLET BEFORE USE
KEEP OUT OF REACH OF CHILDREN AND ANIMALS**

GROUP	1B	INSECTICIDE
<p>A systemic and contact insecticide and miticide for the control of aphids, psylla, red scale, fruit fly, Bryobia mite, woolly aphid, mealy bug and black moth on crops as listed.</p>		<p>'n Sistemiese en kontak insek- en mytdoder vir die beheer van plantluise, silla, rooidopluise, vrugtevlieg, Bryobiamyt, bloedluis, witluis en swartmot op gewasse soos aangedui.</p>
 <p>DANGER</p>		<p>Hazard statements Flammable liquid and vapour. Harmful if swallowed, in contact with skin or inhaled. Causes skin irritation. May cause an allergic skin reaction. May damage fertility or the unborn child. May cause cancer. Toxic to aquatic life.</p> <p>Precautionary statements Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection.</p>

ACTIVE INGREDIENT/AKTIEWE BESTANDDEEL

Dimethoate (organophosphate) 400 g/LDimetoaat (organofosfaat)

NET VOLUME/NETTO VOLUME

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REGISTRATION HOLDER/REGISTRASIEHOUER

ADAMA South Africa (Pty) Ltd; Reg. no. 1992/001741/07
 Ground Floor, Simeka House
 The Vineyard Office Estate, 99 Jip de Jager Drive
 Belville, 7530
 T: +27 21 982 1460, infocpt@adama.com

UN no:3017

CONTACT IN EMERGENCY/KONTAK IN NOOD

Griffon Poison Information Centre: +27 82 446 8946
 Tygerberg Poison Information Centre: +27 861 555 777

Batch number
 Date of manufacture
 Expiry date

Lotnommer
 Datum van vervaardiging
 Vervaldatum

WARNINGS

- Flammable liquid and vapour.
- Harmful if swallowed, in contact with skin or inhaled.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May damage fertility or the unborn child.
- May cause cancer.
- Toxic to aquatic life.

Withholding periods (Allow the following number of days between the last application and harvesting or feeding and grazing):

Apples, Pears	14 days
Bait treatment on Apples, Pears, Peaches & Plums	10 days
Citrus	14 days
Peaches, Plums & Grapes	28 days
Wheat	21 days
Tobacco	7 days
Sorghum, Groundnuts, Cotton, Cauliflower, Cabbage, Beans, Strawberries, Potatoes and Cucurbits	14 days
Barley	50 days

Do not use on apricots, rough lemon, Seville orange and certain ornamentals as indicated.

- Handle with extreme care.
- Toxic if swallowed, inhaled and by skin contact.
- Mild irritant to eyes and skin.
- Very toxic to fish, bees and wildlife.
- **FLAMMABLE** – do not store near open flame.
- Store under lock and key in a cool, dry place, away from food, feeds and seed.
- Keep out of reach of children, uninformed persons and animals.

- **Re-entry:** Do not enter treated area within 2 days after treatment unless wearing protective clothing.
- **In case of poisoning call a doctor and make the label available to him/her.**
- **Aerial application:** Notify all inhabitants of the immediate area to be sprayed and issue the necessary warnings. Do not spray over or allow drift to contaminate water and adjacent areas.

Although this remedy has been extensively tested under a large variety of conditions, the registration holder does not warrant that it will be efficacious under all conditions because the action and effect thereof may be affected by factors such as abnormal climatic and storage conditions; quality of dilution water, incompatibility with other substances not indicated on the label and the occurrence of resistance of the pest to the remedy concerned as well as by the method, time and accuracy of application. The registration holder further does not accept responsibility for damage to crops, vegetation, the environment or harm to man or animal or for lack of performance of the remedy concerned due to failure of the user to follow the label instructions or to the occurrence of conditions which could not have been foreseen in terms of the registration. Consult the supplier in the event of any uncertainty.

PRECAUTIONS

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- Ground and bond container and receiving equipment.
- Use explosion-proof equipment.
- In case of fire: Use media other than water to extinguish.
- Keep container tightly closed.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Avoid release to the environment.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves; protective clothing; eye protection and face protection.
- Do not eat, drink or smoke when using this product.
- Wash hands, forearms and face thoroughly after handling.
- Call a POISON CENTRE or doctor if you feel unwell.
- IF SWALLOWED: Rinse mouth. Call a POISON CENTRE or doctor if you feel unwell.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Specific treatment (see supplemental first aid instruction on this label). Get medical help.

- If skin irritation occurs: Get medical advice/attention.
- Take off contaminated clothing and wash it before reuse.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical help.
- Store in a well-ventilated place. Keep cool.
- Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

- Do not inhale fumes or spray mist.
- Avoid skin and eye contact.
- Wear protective clothing, overall, suitable mask, rubber gloves and rubber boots when handling and mixing the product and whilst applying the spray mixture.
- Wash with soap and water after use and accidental skin contact.
- Wash contaminated clothing after use.
- Do not eat, drink or smoke while mixing or applying the product or before washing hands and face and changing clothing.
- Avoid drift of spray onto other crops, grazing, rivers, dams and areas not under treatment.
- Clean application equipment after use or before using with other remedies. Dispose of wash water where it will not contaminate crops, grazing, rivers, dams and boreholes.
- Invert the empty container over the spray or mixing tank and drain for at least 30 seconds after the flow has slowed down to dripping. Thereafter rinse the empty container *three times* in succession with one quarter of the container volume fresh water and decant the rinsate into the spray or mixing tank. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za).
- Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.
- **Never** re-use the empty container for any other purpose.
- Prevent contamination of food, feeds, drinking water and eating utensils.

RELEVANT SUBSTANCES

Chemical name	w/w %	CAS no.
Methylglycol	10–30%	109-86-4
Dimethoate	30–60%	60-51-5
Xylene	30–60%	1330-20-7
Epichlorohydrin	<10%	106-89-8

FIRST AID TREATMENT

The airway should be kept clear to maintain respiration. First aid treatment should be performed by qualified medical personnel and should include, if necessary, mouth-to-nose respiration and cardiac massage.

Inhalation: Immediately remove source of contamination or move the patient to fresh air. Keep the patient warm and at rest. If necessary, perform mouth-to-nose respiration and administer oxygen. **Obtain medical advice immediately.**

Skin contact: Remove contaminated clothing, shoes and leather goods immediately. Wash skin gently and thoroughly with clean water and non-abrasive soap until no evidence of chemical remains. **Obtain medical advice immediately.**

Eye contact: Flush eyes immediately with large amounts of gently flowing cold water, occasionally lifting upper and lower lids, for at least 15 to 20 minutes until no evidence of chemical remains. Obtain medical advice.

Ingestion: Do not induce vomiting, due to aromatic solvent present in product. **Obtain medical advice immediately** and make the container, or label or Data Sheet available. Never give anything by mouth to a semi-conscious or unconscious person. If vomiting occurs, take care to prevent vomit from being inhaled. Establish and maintain airway. Treat respiratory difficulty with artificial respiration and oxygen.

Advice to physician

This product contains a cholinesterase inhibitor and an aromatic solvent.

If product is aspirated into the lungs during ingestion or vomiting, mild to severe chemical pneumonia may be caused. The stomach should be emptied as soon as possible by careful gastric lavage.

An aqueous suspension of activated charcoal can be administered to absorb remaining toxicant. As early as possible, administer atropine sulfate intravenously and pralidoxime chloride or obidoxime chloride. The dose and frequency of atropine varies with each patient, administer until atropinization is achieved. Signs of atropinization are dry, flushed skin, tachycardia and pulse rate of over 120 per minute.

Important Note: Morphine, phenothiazines, reserpine and theophylline are contraindicated in organophosphorous poisoning. Avoid aminoglycosides and succinylcholine.

Symptoms of human poisoning

If swallowed and aspirated into the lungs, chemical pneumonia can occur.

Symptoms of exposure to the product include: headache, fatigue, faintness, giddiness, excessive sweating, nausea, abdominal pains, vomiting, diarrhoea, tightness of the chest, anxiety, blurred vision, muscle twitching beginning in the eyelids and tongue, small pupils, respiratory distress, convulsions and coma.

RESISTANCE WARNING

For resistance management, **ADAMA DIMETHOATE** is a group code **1B** insecticide. Any insect population may contain individuals naturally resistant to **ADAMA DIMETHOATE** and other group code **1B** insecticides. The resistant individuals can eventually dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by **ADAMA DIMETHOATE** or any other group code **1B** insecticide.

To delay insecticide resistance:

- Avoid exclusive repeated use of insecticides from the same insecticide group code. Alternate or tank-mix with products from different insecticide group codes,
- Integrate other control methods (chemical, cultural, biological) into insect control programmes.

For specific information on resistance management contact the registration holder of this product.

MODE OF ACTION

1B: (Organophosphate) acetylcholinesterase (AChE) inhibitors – Inhibit AChE, causing hyperexcitation. AChE is the enzyme that terminates the action of the excitatory neurotransmitter acetylcholine at nerve synapses.

DIRECTIONS FOR USE

Use only as directed.

Aerial application

Aerial application of **ADAMA DIMETHOATE** may only be done by a registered Aerial Application Operator using a correctly calibrated, registered aircraft according to the instructions of SANS Code 10118 (Aerial Application of Agricultural Pesticides). Ensure that the spray mixture is distributed evenly over the target area and that the loss of spray material during application is restricted to a minimum. It is therefore essential that the following criteria be met:

- Volume: A spray mixture volume of 30 litre per hectare is recommended. As this product has not been evaluated at a reduced volume rate, the registration holder cannot guarantee efficacy, or be held responsible for any adverse effects if this product is applied aurally at a lower volume rate than recommended above.

- Droplet coverage: 25 to 35 droplets per cm² must be recovered at the target area.
- Droplet size: A droplet spectrum with a VMD of 280 to 300 microns is recommended. Limit the production of fine droplets less than 150 microns (high drift and evaporation potential) to a minimum.
- Flying height: Maintain the height of the spray boom at 3 to 4 metres above the target. Do not spray when aircraft dives, is in a climb or when banking.
- Use suitable atomising equipment that will produce the desired droplet size and coverage, but which will ensure the minimum loss of product. The spraying system must produce a droplet spectrum with the lowest possible Relative Span.
- Position all the atomisers within the inner 60 to 75% of the wingspan to prevent droplets from entering the wingtip vortices.
- The difference in temperature between the wet and dry bulb thermometers, of a whirling hygrometer, should not exceed 8°C.
- Stop spraying if the wind speed exceeds 15 km/h.
- Stop spraying under turbulent, unstable and dry conditions during the heat of the day.
- Spraying under temperature inversion conditions (spraying in or above the inversion layer) and/or high humidity conditions (relative humidity 80% and above) may lead to the following:
 - reduced efficacy due to suspension and evaporation of small droplets in the air (inadequate coverage).
 - damage to other sensitive crops and/or non-target areas through drifting of the suspended spray cloud away from the target field.
- Ensure that the Aerial Spray Operator knows exactly which fields to spray.
- Obtain an assurance from the Aerial Spray Operator that the above requirements will be met and that relevant data will be compiled in a logbook and kept for future reference.

COMPATIBILITY

- **ADAMA DIMETHOATE** is compatible with most neutral pesticides. However, since it is not possible for ADAMA South Africa (Pty) Ltd to test all possible combinations, the onus lies with the user to carry out a compatibility test, if tank mixtures are considered.
- Do not mix with alkali spray products, such as lime, lime sulphur and Bordeaux mixture.
- To avoid foliage damage, do not mix with captab.
- Do not use in conjunction with maneb or copper containing products on peaches and nectarines.

MIXING AND APPLICATION INSTRUCTIONS

- Add the required quantity of **ADAMA DIMETHOATE** to water and stir well. No further agitation is needed.
- Only mix as much as required and use immediately.
- Do not use if an emulsion is not formed, or if free oil appears on the surface of the emulsion.
- Spray plants when growing vigorously, not when they are wilted caused by drought, diseased or showing signs of any physiological abnormalities.
- When spraying plants or pests which are difficult to wet (e.g. cabbage or woolly aphid) add a suitable wetting agent (e.g. WET-ALL).
- Where aerial application is prescribed, apply in 30 litre water per hectare.
- For low volume tractor spraying, apply in not less than 100 litre water per hectare. However, on potatoes use in 200 litre water per hectare.

APPLICATION RATES

CROP	PEST	DOSAGE	REMARKS
Citrus (do not use on rough lemons or Seville oranges)	Aphids	40 ml/100 L water	Apply as a full cover spray when trees are flushing.
	Psylla	40 ml/100 L water	Apply when eggs start to hatch on new growth. If possible apply as a spot spray.
	Soft brown scale	100 ml/100 L water	Corrective treatment: Apply if possible, on a spot spraying basis as soon as pest is noticed.
	Red scale	100 ml + 1.0–1.4 L narrow range mineral oil OR 100 ml + 50 ml methidathion/100 L water	Corrective treatment: Apply when 25 to 40% of fruit is infested with one or more live nymphs or adults. Use higher oil dosage in hot, low lying areas. Will also control soft brown and circular purple scale.
Apples and pears	Mealy bug	120 ml/100 L water	Apply as a high volume, full cover spray, 2 to 3 times from end of November to early January.
Apples, pears, plums and peaches	Aphids, Bryobia mite, Woolly aphid	75 ml/100 L water	Apply as a high volume, cover spray when pest appears. Use high pressure to control woolly aphid.
	Fruit fly	150 ml + 250 ml protein hydrolysate/100 L water	Bait treatment: Apply weekly as a coarse droplet spray when fruit becomes susceptible to attack. Repeat after rain. Winter applications on sunny days to ever green fruit trees will reduce the over-wintering population.
Barley	Russian aphid	750 ml/ha	Aerial application and low volume ground application. Will also control brown and green aphids.
	Brown and green aphids only	500–750 ml/ha	Aerial application and low volume application. Use higher dosage under dry conditions. Best results are obtained when barley is growing actively.

CROP	PEST	DOSAGE	REMARKS
Wheat	Aphids	500–750 ml/ha	Aerial application and low volume application. Use higher dosage under dry conditions and on dryland wheat after early piping stage. Best results are obtained if wheat is growing actively.
Sorghum	Aphids	560–660 ml/ha	Aerial application and low volume (mistblower) application. Dosage depends on plant density and size.
Groundnuts and tobacco	Aphids	800 ml/ha	Low volume, cover application. Apply at first sign of infestation and repeat as necessary.
Cotton	Aphids	600 ml/ha	Ground application: Apply in 250 to 300 litre water per hectare.
		800 ml/ha	Aerial application: Apply in a minimum of 30 litre per hectare.
Potatoes	Aphids	800 ml/ha	Low-volume and aerial application. Apply at first sign of infestation and repeat regularly.
Beans, cabbage, cauliflower, cucurbits and strawberries	Aphids	75 ml/100 L water	High volume and full cover spray.
Ornamentals and flowers	Aphids	75 ml/100 L water	Full cover spray. Do not use on Begonia, Chrysanthemums, Zinnia, Ficus, Jacobinia or Pride-of-India.
Grapes	Mealy bug	125 ml/100 L water	Commence spraying when pest is noticed, usually at the base of shoots Repeat at 14-to-21-day intervals.
Proteas	Black moth	120 ml/100 L water	Full cover application of growth points and flower buds