

**FARM-AG INTERNATIONAL (Pty) Ltd**

P.O. Box 1523, Durban 4000

**Head Office :** 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe **South Africa**

Registration Number: 2005/011761/07

**Tel + 27 31 003 3486 • Fax + 27 31 502 5825****SECTION 1 - PRODUCT & COMPANY IDENTIFICATION**

**Substance:** oxamyl  
**Product Name:** **FOXAMYL 310 SL**  
**Creation Date:** April 2014  
**Revision Date:** September 2017

**24 Hr Emergency Number:** 082 771 2712

**In case of poisoning:**

Poison Information Centre: 082 446 8946  
Tygerberg Hospital: (021) 931 6129  
Poison Emergency Enquiries (021) 689 5227

**In case of Spillage:**

HAZMAT: 0800 147 112

**SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS**

**Active ingredient** Oxamyl  
**Chemical Name** *N,N*-dimethyl-2-methylcarbamoyloxyimino-2-(methylthio)acetamide (IUPAC)  
**CAS No.** 23135-22-0  
**Chemical Family** oxime carbamate  
**Chemical Formula** C<sub>7</sub>H<sub>13</sub>N<sub>3</sub>O<sub>3</sub>  
**UN no.** 2991  
**Use** Contact and systemic insecticide, acaricide and nematocide, absorbed by foliage and roots, with translocation.

**SECTION 3 - HAZARD IDENTIFICATION****Main hazard:**

Very toxic by inhalation. Toxic if swallowed. Harmful when in contact with skin. Flammable.

This product contains an anti-cholinesterase compound. Do not use if under medical advice not to work with such compounds.

**Symptoms of poisoning:**

Symptoms may include nausea, vomiting, diarrhoea, abdominal cramps, headache, vertigo, tightness of the chest, anxiety, ocular pain, ciliary muscle spasm, blurred vision, small pupils, or mydriasis, lacrimation, salivation, sweating, and confusion. In severe cases, there may be bradycardia, hypotension, pulmonary oedema, convulsions, coma, and death from respiratory failure or cardiac arrest.

**Eye contact:** Toxic . May cause mild irritation.

**Skin contact:** Toxic . May cause mild irritation.

**Ingestion:** Toxic . May be fatal.

**Inhalation:** Toxic . May be fatal.

**Carcinogenicity:** Not carcinogenic.

**Mutagenicity:** Not mutagenic.

**Reproductive/teratogenicity:** Unlikely to cause reproductive effects in humans at expected exposure levels and does not cause teratogenic effects.

**SECTION 4 - FIRST AID MEASURES AND PRECAUTIONS****Inhalation:**

Remove from exposure area to fresh air immediately. Loosen clothing around neck. Keep person warm and at rest. If breathing is shallow or has stopped, perform artificial respiration or administer oxygen. Only qualified persons must perform administration of oxygen. **Get medical attention immediately.**

**Skin contact:**

Remove contaminated clothing immediately and rinse contaminated body area thoroughly with plenty of soap and cold water, followed by alcohol. Do not rub skin. Emergency personnel should wear gloves and avoid contamination. Seek medical assistance if irritation occurs.

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## Eye contact:

Flush contamination out of eyes with clean lukewarm, gently flowing water for at least 20 minutes, while holding eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face.

## Ingestion:

If swallowed, rinse mouth thoroughly with water and **immediately get medical attention**. If person is alert and respiration is not depressed, give syrup of Ipecac followed by water or activated charcoal if instructed. Vomiting can be induced by touching the back of the throat after the patient has drunk 1 – 2 glasses of water. If vomiting occurs, keep head below hips to prevent aspiration. Establish and maintain airway.

**Never** give anything by mouth to an unconsciousness person. **Take the patient to a physician immediately.**

## Note to physician:

Oxamyl is a carbamate compound, which inhibits cholinesterase. Systemic effects may begin within a few minutes or several hours of exposure. If consciousness level declines or vomiting has not occurred in 15 minutes empty stomach by gastric lavage. Avoid aminoglycosides and succinylcholine. Phenothiazines, reserpine, theophylline, morphine, Pralidoxime (2-PAM, Protopam) and other oximes are contra-indicated.

**Antidote:** Administer atropine sulphate intravenously or intramuscularly. In moderately to severe poisoning administer atropine sulphate, 0.4 to 2.0 mg repeated every 15 minutes, until atropinization is achieved (dry, flushed skin, dry mouth and tachycardia). Maintain atropinization by repeated doses for 2 to 12 hours, or longer, depending on the severity of poisoning.

## SECTION 5 - FIRE-FIGHTING MEASURES

### Fire and explosion hazard:

Flammable.

### Extinguishing agents:

Extinguish fires with carbon dioxide, dry chemical or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Minimise the use of water to prevent environmental contamination. Do not use high volume water jet due to contamination risk.

### Hazardous products of combustion:

Heating can release vapours that can be ignited. Hazardous decomposition products: carbon oxides, nitrogen oxides. Vapours may form explosive mixture with air.

### Fire fighting:

Remove spectators from surrounding area. Remove container from fire area if possible. Do not extinguish fire until flow of product has been stopped. Fight fire from a maximum distance or use unmanned hose holders or monitor nozzles. Contain fire control agents for later disposal. Use a recommended extinguishing agent. Water can be used to cool unaffected containers. Avoid inhaling hazardous vapours.

Keep upwind.

### Personal protective equipment:

Fire may produce irritating or poisonous vapours (toxic oxides of nitrogen and carbon and corrosive fumes of chlorides), mists or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES (SPILLAGE)

### Personal precautions:

Avoid contact with skin and eyes. Do not breathe in fumes. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use.

For personal protection see Section 8.

### Environmental precautions:

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

### Occupational spill:

Wear protective clothing. Clear area of unprotected personnel. Contain and absorb liquid spills with inert material, remove by scoop or vacuum. Use approved industrial vacuum cleaner for removal and place in waste containers. Wash area with water and detergent and absorb with further inert material. Heavily contaminated soil layers have to be dug out down to clean soil. If spill does enter waterways contact the local authority. Spilled product cannot be re-used and must be disposed of by incineration or disposal in a chemical waste disposal facility. If containers cannot be recycled, they should be disposed of together with the waste chemical. Generates poisonous and corrosive fumes.

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For **small liquid spills**, neutralise with sodium carbonate and allow standing for 4 hours. Soak up or cover with non combustible.

## SECTION 7 - HANDLING AND STORAGE REQUIREMENTS

### Handling:

Harmful by inhalation or if swallowed. Avoid contact with eyes and skin, and inhalation of vapour and spray. Use with adequate ventilation. Do not spray near open flame or sources of ignition. Do not smoke. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Remove clothing immediately if the insecticide gets inside.

Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

### Storage:

To maintain the quality, store in covered warehouse at temperatures between 0o and 40o C. Store in original containers tightly closed, in a cool, dry, well-ventilated place. Store away from food, drink, animal feeding stuffs and sources of ignition. Keep away from children and unauthorised adults. Adhere to local regulations.

## SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

### PERSONAL PROTECTIVE EQUIPMENT:

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

#### Respirator:

An approved respirator with combination filter for vapour/particulate, suitable for protection from dusts and mists of pesticides is adequate. Limitations of respirator use specified by the approved agency and the manufacturer must be observed.

#### Gloves:

Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance.

#### Eye protection:

The use of a face shield is recommended.

### Emergency eye wash:

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.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Greenish blue liquid.
<b>Odour:</b>	Alcoholic.
<b>Solubility in water:</b>	Completely miscible in water.
<b>Flash point:</b>	23 °C
<b>pH:</b>	2,8 – 3,3
<b>Density:</b>	0,899 g/ml

## SECTION 10 - STABILITY AND REACTIVITY

### Stability:

No decomposition if stored and applied as directed.

### Conditions and Materials to Avoid:

Heating can release vapours that can be ignited.

### Hazardous decomposition products:

Carbon oxides, nitrogen oxides. Vapours may form explosive mixture with air.

## SECTION 11 - TOXICOLOGICAL INFORMATION

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**Tel + 27 31 003 3486 • Fax + 27 31 502 5825****Acute oral LD50:** 38 % technical material: 3.1 mg/kg in rats.**Acute dermal LD50:** 38 % technical material: 5027 mg/kg in rabbits.**Inhalation:** 38 % technical material: LC<sub>50</sub> (1 h) (atomized spray) for male rats 0.17, female rats 0.12-mg/l air.**Skin irritation:** Skin irritant**Eye irritation:** Eye irritant.**Dermal sensitisation:** No sensitisation reactions observed on laboratory animals.**Further information:** Skin contact or inhalation of solvents contained in this product may cause irritation of skin, eyes and mucous membranes.**SECTION 12 - ECOLOGICAL INFORMATION****Bioaccumulation:**

log POW = -0.48

Persistence and degradability: according to the results of tests of biodegradability, this product is not readily biodegradable.

**ECOTOXICOLOGY (based on technical):****Birds:**LC<sub>50</sub> (8 day diet) bobwhite quail 340 ppmLC<sub>50</sub> (5 day diet) mallard ducks 766 ppm

bobwhite quail &gt; 5620 mg/kg diet

**Fish:** LC<sub>50</sub> (96 hours, 90% a.i.): rainbow trout 4.2 mg/l

bluegill sunfish 5.6 mg/l

**Daphnia:** LC<sub>50</sub> (48 hours, 97% a.i.): 0.319 mg/l**Algae:** EC<sub>50</sub> (72 hours): 3.3 mg/l**Bees:** LD<sub>50</sub> (oral) 0.078-0.11 ug/bee (as 'Vydate'); (contact) 0.27-0.36 ug/bee.**SECTION 13 - DISPOSAL CONSIDERATION****Pesticide disposal**

Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product that cannot be reused or reprocessed should be disposed of in a landfill approved for pesticide disposal. Do not contaminate rivers, dams or any other water sources with the product or used containers.

**Package product wastes:**

Emptied containers retain vapour and product residues. Observe all labelled safeguards. **TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsing to the contents of the spray tank before destroying the container.

Destroy the emptied containers by perforation and flattening. Bury in an approved dumpsite. Do not re-use the empty container for any other purpose.

**SECTION 14 - TRANSPORT INFORMATION****UN No.:** 2991**Road Transport ADR/IRD:**

Class: 6.1 (3)

Packaging group: I

Shipping name: Carbamate Pesticide, Liquid, Toxic, N.O.S (flammable, carbamate, oxamyl 310 g/l)

**Air Transport ICAO/IATA:**

Class: 6.1 (3)

Packaging group: I

Shipping name: Carbamate Pesticide, Liquid, Toxic, N.O.S (flammable, carbamate, oxamyl 310 g/l)

**Maritime Transport IMDG/IMO:**

Class: 6.1 (3)

Packaging group: I

Shipping name: Carbamate Pesticide, Liquid, Toxic, N.O.S (flammable, carbamate, oxamyl 310 g/l)

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<b>Symbol:</b>	T+, F, N, Xi
<b>Indication of danger:</b>	Very toxic
<b>Risk phrases:</b>	
<b>R 10</b>	Flammable.
<b>R 21</b>	Harmful in contact with skin.
<b>R 26/28</b>	Very toxic by inhalation and if swallowed.
<b>R51/53</b>	Toxic to aquatic organisms may cause long term adverse effects in the aquatic environment.
<b>Safety phrases:</b>	
<b>S 1/2</b>	Keep locked up and out of the reach of children.
<b>S 13</b>	Keep away from food, drink and animal feeding stuffs.
<b>S 20/21</b>	When using do not eat, drink or smoke.
<b>S 24/25</b>	Avoid contact with skin and eyes.
<b>S 26</b>	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>S 35</b>	This material and its container must be disposed of in a safe way.
<b>S 36/37/39</b>	Wear suitable protective clothing, gloves and eye/face protection.
<b>S 38</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>S 46</b>	If swallowed, seek medical advice immediately and show container or label.
<b>S 63</b>	In case of accident by inhalation: remove casualty to fresh air and keep at rest.

**Indication of danger :**

**National legislation:** In accordance with 91/155/EEC Directive and with French standard T 01-102 and the South African Occupational Health and Safety Act, 1993 (Act. No. 85 of 1993).

**SECTION 16 - OTHER INFORMATION****Packing and Labelling**

Packed in 5, 10, 20 & 25 litres fluorinated plastic containers and labelled according to the South African regulations and guidelines.

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

**REFERENCES**

- Applicable to own physical and chemical, toxicity and ecotoxicity research studies.
- MICROMEDEX, *Environmental Health & Safety Series*.
- The Pesticide Manual, Eleventh Edition; C.D.S.Tomlin.
- ADR-Vol. II (Annex B), January 1997.
- Dangerous Goods Regulations , IATA, 40<sup>th</sup> Edition, Effective 1 January 1999.

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END OF MSDS.