OxaMyl 310 SL

SAFETY DATA SHEET

1. PRODUCT & COMPANY IDENTIFICATION

Product Name: OxaMyl 310 SL

Pesticide Classification: Insecticide

UN No.: 2991

Supplier	**Registration Holder**
Enviro Bio-Chem (Pty) Ltd	Erintrade t/a RT Chemicals
Co. Reg. No.: 2013/194774/07	Co. Reg. No.: CK2001/036403/23
44 Kerk Street, Lichtenburg	44 Kerk Street, Lichtenburg
North West, South Africa 2740	North West, South Africa 2740

Telephone: +27 87 231 7261

Fax: 086 541 7948

Website: www.envirobiochem.co.za

24 Hr Emergency Number: Bateleur: +27 83 123 3911

In case of Poisoning:

Poison Information Centre: +27 82 446 8946

Tygerberg Hospital: (+27 21) 931 6129

Poison Emergency Enquiries: (+27 21) 689 5227

Common Name: Oxamyl 310 g/ℓ SL

Chemical Name: N, N-dimethyl-2-methylcarbamoyloxyimino-2-(methylthio)acetamide

Empirical Formula: $C_7H_{13}N_3O_3S$

CAS No.: 23135-22-0

RSA Reg. No.: L9246 Act 36 of 1947

Namibia Reg. No.: N-AR 1451

---

2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	Concentration
Oxamyl (carbamate)	± 310 g/ℓ
Alkylphenol ethoxylates + methanol	± 400 g/ℓ
Water	± 300 g/ℓ

3. HAZARD IDENTIFICATION

Hazard Class: WHO Class Ia -Extremely hazardous.

Main Hazard: May be fatal or cause blindness if swallowed. May be fatal if absorbed through skin or inhaled. Do not inhale vapours or spray mist.

Flammability: Flammable

Chemical Hazard: Contains methanol. Heating can release vapours which can be ignited.

Biological Hazard: Highly toxic to birds and bees. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES AND PRECAUTIONS

If poisoning is suspected, do not wait for symptoms to develop. Contact a physician, the nearest hospital or the nearest Poison Control Centre.

Symptoms of Human Poisoning: Oxamyl poisoning produces effects associated with anticholinesterase activity which may include weakness, discomfort in the chest, constriction of pupils, sweating, slow pulse and muscle tremors.

First Aid Measures:

Skin Contact: Take off contaminate clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

Eye Contact: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes. Then continue rinsing eye. Call a poison control centre or physician for treatment advice.

Ingestion: Call poison control centre or physician immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

Inhalation: Move person to fresh air. If person is not breathing give artificial respiration, preferably by mouth-to-mouth, if possible, call a poison control centre or physician for treatment advice.

Advice to Physician: Oxamyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse and muscle tremors.

Antidote: Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to oxamyl 310g/ℓ SL alone. However, for exposure to combinations of oxamyl 310 g/ℓ SL and organophosphorous insecticides, 2-PAM may be used as required to supplement the atropine sulphate treatment. Do not use morphine.

5. FIRE FIGHTING MEASURES

Flammability: Flammable

Extinguishing Agents: Use water spray, Foam, Dry Chemical or CO_2.

Firefighting: Evacuate personnel to a save area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Shut off source of fuel, if possible and without risk. Use water spray to cool containers. Runoff from fire control may be a pollution hazard. If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment.

Special Hazards: May be ignited by heat, sparks or open flame. Heating can release vapours which can be ignited.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal Precautions: Review Section 5 and Section 7 before proceeding with clean-up. Use appropriate personal protective equipment during clean-up. Evacuate personnel, thoroughly ventilate area and use self-contained breathing apparatus. Keep upwind of leak and evacuate until gas has dispersed. Chemical resistant coveralls, waterproof gloves, waterproof boots and face/eye protection must be worn. If dusting occurs, use NIOSH approved respirator protection.

Environmental Precautions: Prevent spilled material from entering drains or watercourses. Contain spill and absorb with earth, sand, clay or another absorbent material.

Spills: Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up contaminated absorbent and dispose of according to Section 13. Never return to container for re-use. Scoop into bags or boxes with plastic or aluminium shovel. Neutralize with solid sodium hydroxide at rate of 0.4 kg/ℓ spilled.

7. HANDLING AND STORAGE REQUIREMENTS

Handling: Keep this product away from heat, sparks and flames. Do not inhale vapor or mist. Wash thoroughly after handling the product. Wash clothing after use. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing them and then wash thoroughly and change into clean clothing.

Storage: Store above 0 ˚C. Store product in original container only. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Do not contaminate water, other pesticides, fertilizer, food or feed in storage. Not for use or storage in or around the home.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Acceptable Daily Intake (ADI): No data available.

Engineering Controls: Use outdoors in a well-ventilated area. Comply with occupational safety, environmental, fire and other applicable regulations. Wear suitable personal protective equipment.

Personal Protective Equipment:

Clothing: Long-sleeved shirt, long pants, chemical resistant shoes plus socks, protective waterproof (impermeable) gloves. Chemical resistant headgear for overhead exposure must be worn. Wear chemical resistant apron when cleaning equipment, mixing or loading. Discard clothing or other absorbent material that have been drenched or heavily contaminated with this product's concentrate.

Gloves: Wear chemical-resistant gloves, such as barrier laminate, butyl rubber, neoprene rubber, polyvinyl chloride (PVC), viton or nitrile rubber.

Eye Protection: Wear eye protection. During mixing or pouring operations or other activities in which eye contact with undiluted product is likely to occur, splash goggles should be worn. 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.

Respiratory: Use appropriate respirator if exposed to spray mist.

Other Protection: Do not eat, drink or smoke while handling this product. Prevent contamination of food, feeds, drinking water and eating utensils. After using this product wash hands and face before eating. Take extreme care to avoid drift. Wash accurately (preferably a shower) after a work shift. Wash hands with soap and water during breaks and at the end of work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid

Color: Green or slightly yellow transparent liquid.

Odor: Slightly sulfurous.

Density: 1.02~1.03

Solubility in Water: Soluble

Stability: Stable at normal temperatures and storage conditions.

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Conditions to Avoid: Avoid possible ignition sources or excessive heat.

Incompatible Materials: Incompatible with strong acids or bases (slowly hydrolyzes)**.**

Decomposition Products: Decomposes to carbon oxides and nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity based on the active ingredient toxicity.

Acute Oral LD_{50} (rat): 2.5 mg/kg. Highly toxic.

Acute Dermal LD_{50} (rabbit): >2 000 mg/kg. Slightly toxic.

Acute Inhalation LC_{50} (rat, 4 hr): 0.3 mg/ℓ air. Highly toxic.

Skin and Eye Irritation (rabbit): Single or repeated skin contact with oxamyl may cause mild skin irritation and cholinesterase inhibition (tremors, salivation, watery eyes).

Skin Sensitization (guinea pig): Not a skin sensitizer.

Chronic Dietary Study: Single exposure to oxamyl by ingestion may cause signs of cholinesterase inhibition, reduced weight gain and temporary alteration in clinical chemistry including liver enzymes and glucose levels. Repeated or long-term exposure caused nonspecific effects such as weight loss and irritation, as well as signs of cholinesterase inhibition. Changes in liver enzyme levels have been reported, but the structure of the liver itself appeared normal. In an acute neurotoxicity study there was unequivocally decreased blood and brain cholinesterase activity. The NOEL in this study was 0.1 mg/kg.

Single exposure to 0.024 mg/ℓ of oxamyl by inhalation caused tremors and lethargy. These signs were not observed caused tremors and lethargy. These signs were not observed in a group exposed to 0.0049 mg/ℓ. Plasma, red blood cells and brain cholinesterase activity were decreased in rats exposed to 0.024 mg/ℓ and to a lesser extent in rats exposed to 0.0049mg/ℓ.

Carcinogenicity: Tests in animals demonstrate no carcinogenic activity.

Mutagenicity: No data available.

Reproductive Hazard: Tests in some animals indicate that oxamyl may cause developmental toxicity, but only at doses close to those which cause maternal toxicity. The only reported effects were slightly reduced fetal weights and fewer implantations. Tests in animals demonstrate no effect on reproductive indices (mating, fertility, or gestation).

General Toxicity:

Methanol Potential Health Effects: Methanol is a skin, eye and upper respiratory tract irritant. Inhalation, ingestion or skin absorption may initially include visual disturbances including blindness, temporary nervous system depression with anaesthetic effects such as dizziness, headache, confusion, incoordination and loss of consciousness. Non-specific discomfort, such as nausea, headaches, weakness, acidosis, irritation of the upper respiratory passages or fatality from gross overexposure may occur. Individuals with pre-existing diseases of the retina or liver may have increased susceptibility to methanol toxicity.

Oxamyl Potential Health Effects: Based on animal data, skin contact, eye contact, inhalation or ingestion exposures to oxamyl may cause acute cholinesterase depression characterized by weakness, nausea, headaches, abdominal cramps, excessive seating, salivation, tearing, constricted pupils, blurred vision, muscle twitching and confusion. Higher exposure may lead to loss of consciousness, convulsions or severe respiratory depression. Individuals with pre-existing diseases of the central nervous system or conditions which lower cholinesterase levels may have increased susceptibility to the toxicity of excessive exposure. Short-term overexposure by inhalation may cause non-specific effects such as headaches, nausea, weakness and irritation of the upper respiratory passages with coughing and discomfort.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Fish LC_{50} (96 hr): 4.2 mg/ℓ (rainbow trout); 5.6 mg/ℓ (bluegill sunfish). Moderately toxic to fish.

Aquatic Toxicity Daphnia LC_{50} (48 hr): 0.319 mg/ℓ (daphnia magna).

Aquatic Toxicity Algae EC_{50} (72 hr): 3.3 mg/ℓ.

Avian Toxicity LD_{50} (9 days): 3.16 – 3.83 mg/kg (mallard duck). Highly toxic to birds.

Bee Toxicity LD_{50}: Highly toxic to bees.

Biodegradability: Oxamyl is of low persistence in soil with reported field half-lives of 4 to 20 days.

Bio-accumulation: No data available.

Mobility: Oxamyl has been known to leach in soils.

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Dispose of waste product as hazardous waste via a licensed disposal contractor to an approved landfill. Do not discharge into drains or sewers. Do not contaminate crops, grazing, rivers or dams with chemical or used containers. Waste resulting from the use of this product that cannot be re-used or reprocessed should be disposed of in a landfill approved for pesticide disposal in accordance with applicable local procedures. Comply with any local legislation applying to waste disposal.

Package Product Wastes: Metal containers (non-aerosol) must be triple rinsed (or equivalent) and then offered for recycling and reconditioning or puncture and dispose of in a sanitary landfill via a licensed disposal contractor.

Plastic containers must be triple rinsed (or equivalent) offered for recycling and reconditioning or punctured and dispose of in a sanitary landfill via a licensed disposal contractor.

14. TRANSPORT INFORMATION

UN No.: 2991

Class: 3

Packaging Group: I

Proper Shipping Name: Carbamate Pesticide; Liquid; Toxic; Flammable (contains Oxamyl).

Marine Pollutant: Marine Pollutant.

15. REGULATORY INFORMATION

Risk Phrases:
R10- Flammable
R21- Harmful in contact with skin.
R26/28- Very toxic by inhalation and if swallowed.
R36/38- Irritating to eyes and skin.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:
S1/2- Keep locked up and out of the reach of children.
S23- Do not breath fumes or vapour.

National Legislation: This product is registered under Act 36 of 1947 of the Republic of South Africa. It is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions.

16. OTHER INFORMATION

Note: Read and understand all the information on the product label before using the product.

Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

END OF DOCUMENT