



SAFETY DATA SHEET

VIVA 240 SL

SDS: GHS/V1.0

Issue Date: 17.01.2021

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE
COMPANY/UNDERTAKING**

Product identifiers

Product name: VIVA 240 SL
Chemical name: Oxamyl
CAS No.: 23135-22-0

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Nematicide/ Insecticide for agricultural use

Details of the supplier of the safety data sheet

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Switzerland
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Formulation sites:

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12930
Indonesia

Emergency telephone number

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SECTION 2: HAZARDS IDENTIFICATION

Flam. Liq. 3
Acute Oral 2
Acute Inh. 2
Aq chronic 2
STOT SE 1

Classification and Label Elements:



Pictogram(s):

Signal word: Danger

Hazard statement(s):

H226: Flammable liquid and vapour
H300: Fatal if swallowed



H330: Fatal if inhaled
H370: Causes damage to organs
H411: Toxic to aquatic life with long lasting effects

Precautionary statement(s):

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260: Do not breathe fume/ mist/ vapours/ spray.
P273: Avoid release to the environment.
P284: Wear respiratory protection.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P370+P378: In case of fire: Use water spray, foam, dry chemical or CO₂ to extinguish.
P501: Dispose of contents/container in accordance with local and national regulations

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Name	g/litre	CAS N°	H-statements
Oxamyl	240	23135-22-0	H300, H330, H312, H411
Methanol	<500	67-56-1	H225, H331, H311, H301, H370

SECTION 4: FIRST AID MEASURES**CONTAINS AN N-METHYL CARBAMATE THAT INHIBITS CHOLINESTERASE**

If warning symptoms appear (see Warning symptoms), get immediate medical attention. Have the product container or label or this SDS with you.

Emergency overview:

This product contains an anticholinesterase carbamate compound. Do not handle if under medical advice not to work with such compounds, or with methanol. Cholinesterase-inhibiting effects are short-term and reversible. Very toxic by inhalation and if swallowed.

Main cause of contamination is likely to be through swallowing, inhalation, or absorption through skin.

Potential health effects:**Methanol (methyl alcohol)**

Methanol is flammable. It 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 dizziness, headache, confusion, in-coordination, and loss of consciousness, or fatality from gross overexposure. Product is readily absorbed through skin.

Oxamyl

Skin contact, eye contact, inhalation or ingestion exposures to oxamyl may cause acute cholinesterase depression characterized by weakness, nausea, headache, abdominal cramps, excessive sweating, salivation, tearing, constricted pupils, blurred vision, muscle twitching and confusion. Higher exposures may lead to loss of consciousness, convulsions, or severe respiratory depression.

Ingestion:

Immediately call a doctor. Do not induce vomiting or give anything by mouth to an unconscious person. Establish and maintain airway. Treat respiratory difficulty with artificial respiration and oxygen.



Eye contact:	Hold eyes open and rinse slowly and gently with water for 15-20 minutes, until no evidence of chemical remains. Remove contact lenses, if present and easy to do. Continue rinsing eyes.
Inhalation:	Move person to fresh air and keep comfortable for breathing. Keep warm and at rest. If breathing has stopped, call an ambulance, and give artificial respiration, preferably mouth to nose.
Skin contact:	Remove contaminated clothing. Remove excess chemical. Rinse skin immediately with plenty of water and mild detergent until no evidence of chemical remains (approx. 15-20 minutes). Call a doctor for treatment advice.
Warning symptoms:	Oxamyl poisoning produces effects associated with anti-cholinesterase activity that may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors.
Treatment:	<p>Administer atropine sulphate in repeated doses, 1.2 to 2.0 mg intravenously every 10–30 minutes until full atropinisation is achieved, as evidenced by dilation of the pupils, drying secretion, pulse rate of over 120/minute, and flushing skin. Maintain atropinisation until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.</p> <p>DO NOT use 2-PAM or morphine.</p>
Antidote:	ATROPINE – SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

SECTION 5: FIRE FIGHTING MEASURES

Exposure hazards:	Carbon oxides and nitrogen oxides.
Extinguishing media:	Water spray, foam, dry chemical, CO ₂ .
Advise for firefighters:	<p>Evacuate personnel to safe area, upwind of fire. Wear self-contained breathing apparatus and full protective equipment (see section 8).</p> <p>Cool tank/container with water spray. Runoff from fire control may be a pollution hazard.</p> <p>If area is exposed to fire and conditions permit, let fire burn itself out. Toxic by-products may be produced.</p>

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions:	Wear PPE as recommended in section 8. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid contact with spilled material or contaminated surfaces. Keep people and animals away.
Environmental precautions:	Remove potential sources of heat, sparks, flame, impact, friction or electricity. Dike spills. Prevent material from entering sewers, waterways, or low areas.

**Clean-up methods:**

For small spills: neutralise with sodium carbonate or solid sodium hydroxide at rate of 0.3 kg per litre spilled and allow to stand for 4 hours. Soak up spill with sawdust, sand, dry soil or other absorbent material. Shovel or sweep up. Never return to container for reuse. For large spills contact the supplier. Avoid flushing spilled material into drains.

To decontaminate spill area, tools and equipment, wash with organic solvent or detergent (bleach or caustic) and add to labelled drums for collection, to be disposed of in accordance with local regulations.

SECTION 7: HANDLING AND STORAGE**Handling:**

Do not breathe vapour, spray, fumes or mist. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Wash hands before eating, drinking, smoking or using the toilet. Wash clothing after use. Remove clothing immediately if pesticide gets inside. Do not store or consume food, drink or tobacco in areas where they might become contaminated with this material.

Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Storage:

Avoid temperatures below 0°C. Store product in original container only, in a locked store. Do not contaminate water, other pesticides, fertiliser, food or feed in storage. Not for use or storage in or around the home. Keep away from naked flames and other sources of ignition.

Flammability:

Flash point >23°C. Vapour forms explosive mixture with air. Keep away from heat, sparks and flames.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**Occupational Exposure limits:**

	Oxamyl	Methanol
PEL :	None established	200 ppm, 260 mg/m ³ , 8 h TWA
TLV :	None established	200 ppm, 8 h TWA
STEL, Skin		250 ppm
AEL, skin:	0.05 mg/m ³ , 8 & 12 h TWA	200 ppm, 8 & 12 h TWA,

PEL –Permissible Exposure Level
TLV – Threshold Limit Value

AEL = Acceptable Exposure Limit.
STEL - Short-term Exposure Limit

Engineering controls:

Use only with adequate ventilation.
Only spark-resistant equipment should be used.
Comply with occupational safety, environmental, fire and other applicable regulations.

Personal protective Equipment :

Applicators and other handlers must wear:
Coveralls
Chemical resistant gloves, such as barrier laminate, butyl rubber, neoprene rubber, polyvinyl chloride (PVC), viton or nitrile rubber.
Chemical-resistant footwear plus socks.
Protective eyewear.
Chemical-resistant headgear.



Chemical-resistant apron when cleaning equipment, mixing or loading.

A respirator with an organic vapour-removing cartridge with a pre-filter approved for pesticides EN141 or a canister approved for pesticides, SSE216, or a respirator with an organic vapour (OV) cartridge.

Discard clothing or other absorbent materials that have been heavily contaminated with this product, wash PPE with detergent and hot water, or follow manufacturer's instructions. Keep and wash PPE separately from other laundry.

An eyewash fountain or appropriate alternative, and emergency shower should be provided within the immediate work area for emergency use.

The above PPE, apart from respirator and apron, is also required for early entry to treated areas that involves contact with anything that has been treated, such as plants, soil or water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

a)	Appearance:	Green liquid
b)	Odour:	Garlic-like
c)	Odour threshold:	None set
d)	pH:	3 – 4 (1% dilution)
e)	Melting point/freezing point:	<0°C (calc.)
f)	Boiling point/boiling range:	74.5°C (calc)
g)	Flash point:	>23°C (CC)
h)	Evaporation rate:	Not measured
i)	Flammability (solid/gas):	flammable liquid/vapour
j)	Upper/lower flammability or explosive limits:	Not determined
k)	Vapour pressure:	5.12×10^{-5} Pa (25°C) (tech.)
l)	Vapour density:	5.8×10^{-9} Pa x m ³ x mol ⁻¹ (25°C) (tech.)
m)	Relative density:	0.97- 0.99 g/mL
n)	Solubility:	218.5 mg/L (tech. 20°C)
o)	Partition coefficient:	Log P _{ow} -0.044 (pH 5, 25°C) (tech.)
p)	Auto-ignition temperature:	>400°C
q)	Decomposition temperature:	Not determined
r)	Viscosity:	4.261 mPa s (20°C) (tech.)
s)	Explosive properties:	Not explosive
t)	Oxidising properties:	Not an oxidiser

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	Stable at normal temperatures and storage conditions (-2°C to 32°C). Will not polymerise.
Chemical stability:	Stable when diluted. Optimum pH of mixing water is pH 5-6. Avoid mixing with water above pH 7 by using a buffer to pH 5-6.
Possibility of hazardous reactions:	No hazardous reactions when stored and handled according to instructions.
Conditions to avoid:	Sources of ignition, heat and flames.



Incompatible materials: Incompatible with strong acids or bases (slowly hydrolyses).

Hazardous decomposition products: Does not decompose at ambient temperature. Combustion or thermal decomposition will evolve toxic and irritant vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

Oral LD₅₀ rat: >5-50 mg/kg (GHS Cat 2)
Dermal LD₅₀ rat: >2000-5000 mg/kg (GHS Cat 5)
Inhalation LC₅₀ rat, 4 hr: 0.029 mg/l air

VIVA 240 SL is not a skin or eye irritant, nor a skin sensitiser in animals.

For technical material

Single exposure to Oxamyl by ingestion caused signs of cholinesterase inhibition, reduced weight gain, and temporary alterations in clinical chemistry including liver enzymes and glucose levels. Repeated or long-term exposure caused non-specific effects such as weight loss and irritation, as well as signs of cholinesterase inhibition. Changes in liver enzyme levels were noted, but not in liver structure. In an acute neurotoxicity study there was unequivocally decreased blood and brain cholinesterase activity. The NOEL in this study was 0.1 mg/kg.

No carcinogenicity has been demonstrated. Oxamyl may have developmental toxicity (slightly reduced foetal weights and fewer implantations), but only at doses close to those that cause maternal toxicity. There was no effect on reproductive indices (mating, fertility or gestation). Oxamyl does not produce genetic damage in bacterial cell or mammalian cultures.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity (based on active ingredient)

Fish toxicity:	LC ₅₀ 96 h rainbow trout	4.2 mg/L
Daphnia toxicity:	EC ₅₀ 48 h <i>Daphnia magna</i>	0.319 mg/L
Algal toxicity:	EC ₅₀ green algae 72 h	0.93 mg/L
Avian toxicity:	Acute oral LD ₅₀ Mallard duck	3.16 mg/kg
	8-Day dietary LC ₅₀ Bobwhite quail:	766 mg/kg
	8-Day dietary LC ₅₀ Mallard duck:	340 mg/kg

Not readily biodegradable. Not persistent in soil or water. Low potential to bio-concentrate.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product: Treatment, storage, transportation, and disposal must be in accordance with national regulations. Do not flush to surface water or sanitary sewer system. Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are acutely hazardous, and should be disposed of according to the product label.



Contaminated packaging: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved procedures. Plastic containers, after rinsing, may be disposed of by incineration, or if allowed by local authorities, by burning. If burned, stay out of smoke.

SECTION 14: TRANSPORTATION INFORMATION

UN number: 2991

UN Proper Shipping Name: Carbamate pesticide, liquid, toxic, flammable, N.O.S. (contains oxamyl, methanol).

Transport hazard class: ADR/RID: 6.1(3) IMDG 6.1 (3) IATA: 6.1(3)

Packaging group: ADR/RID: II IMDG: II IATA: II

Environmental hazard: ADR/RID: Yes IMDG: Marine pollutant: Yes IATA: Yes

SECTION 15: REGULATORY INFORMATION

No additional regulatory information required for this product.

SECTION 16: OTHER INFORMATION**Additional H-statements:**

H225	Highly flammable liquid and vapour
H301	Toxic if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H331	Toxic if inhaled

Time weighted average (TWA) is the average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

No liability is accepted for any injury, loss, damage or cost arising directly or indirectly from the use of the product or from the use of information contained within the safety data sheet since the customer's treatment of the product is necessarily beyond our control. The supplied data are based on current knowledge and experience. This safety data sheet is intended to describe our product in terms of safety requirements. The customer should determine by appropriate trials that the product is suitable for his intended use.

Sections 9, 11 and 12 based on available EU and own data.
Self-classification of mixture.