

Safety Data Sheet

EXADIA 250 EC - Reg. No: L 10347 (Act No 36 of 1947)

Date of issue: 19/10/2017

| 1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER | |
|--|---|
| Product name: | Exadia 250 EC |
| Other means of identification: | Oxadiazon 250 g/L EC |
| Recommended use: | Crop protection product, herbicide. |
| Restrictions on use: | For use as an Agricultural remedy only. |
| UN No: | 1993 |
| Distributed by: | MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za |
| Emergency Number: | POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 WESTERN CAPE POISONS TELEPHONE SERVICE (OR POISONS HELPLINE): 0861 555 777 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946 |
| Chemical Name: | Oxadiazone |
| 2) Classification of the substance / mixture: | |
| Classification of the product is based on the co-formulants listed in section 3. | <p>Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.</p> <p>Flammable liquids: Category 3 H226: Flammable liquid and vapour</p> <p>Aspiration hazard: Category 1 H304: May be fatal if swallowed and enters airways.</p> <p>Skin irritation: Category 2 H315: Causes skin irritation.</p> <p>Eye irritation: Category 2 H319 Causes serious eye irritation.</p> <p>Specific target organ toxicity – single exposure: Category 3 H336: May cause drowsiness or dizziness.</p> <p>Acute aquatic toxicity: Category 1 H400: Very toxic to aquatic life.</p> <p>Chronic aquatic toxicity: Category 1 H410 Very toxic to aquatic life with long lasting effects.</p> <p>According to Directive 67/548/EEC or 1999/45/EC</p> <p>R10 Xi: Irritant R36/38 N: Dangerous for the environment R50/53 Xn: Harmful R65 R67</p> |

Full text of R and S-phrases: see section 15.

Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply / use required.

Hazardous components which must be listed on the label:
Oxadiazon



Signal word: Danger

Hazard statements:

- H226: Flammable liquid and vapour
- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation
- H319: Causes serious eye irritation
- H336: May cause drowsiness or dizziness
- H410: Very toxic to aquatic life with long lasting effects
- EUH401 To avoid risks to human health and the environment, comply with the instructions for us.

Precautionary statements:

- P240: Ground / bond container and receiving equipment
- P280: Wear protective gloves / protective clothing / eye protection
- P308 + P311: If exposed or concerned: Call a POISON CENTER / doctor / physician.
- P501: Dispose of contents / container in accordance with local regulations

Hazards Identification:

Health effects: eyes:

Causes serious irritation

Health effects: skin:

Causes irritation

Health effects: ingestion

May be fatal if swallowed and enters airways

Health effects: inhalation

May be fatal if swallowed and enters airways

3) COMPOSITION / INFORMATION ON INGREDIENTS:

Mixture: preparation based on Oxadiazon 250 g/L

Hazardous components

R-phrase(s) according to EC directive 67/548/EEC

Hazard statements according to Regulation(EC) No. 1907/2006

| Chemical name | % composition | CAS No. | EC No. | Classification according to Regulation EC 1272/2008 (CLP) | Classification according to Directive 199/45/EC |
|---------------|---------------|------------|-----------|--|---|
| Oxadiazon | 26.0 | 19666-30-9 | 243-215-7 | Aquatic acute 1, H400 Aquatic Chronic 1, H410 | H302 H373 ** H317 H400 H410 |
| Toluene | 64.0 | 108-88-3 | 203-625-9 | H225: Highly flammable liquid and vapour Asp. Tox. 1 H304: May be fatal if swallowed and enters airways STOT Single Exp.3 | GHS02: Flame GHS07: Exclamation mark GHS08: Health hazard |

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|----------------------------------|-----------|------------|-----------|--|---|
| | | | | <p>H336: May cause drowsiness or dizziness.</p> <p>Repr. 2 H361: Suspected of damaging fertility or the unborn child via inhalation</p> <p>STOT Rep. Exp. 2 H373: may cause damage to central nervous system via inhalation through prolonged or repeated exposure.</p> <p>Skin Irrit. 2 H315: Causes skin irritation.</p> | |
| Ethoxylated polyarylphenol | <5.0 | 99734-09-5 | - | <p>Aquatic Chronic 3: H412: Harmful to aquatic life with long lasting effects</p> <p>Aquatic Chronic 2: H411: Toxic to aquatic life with long lasting effects</p> | - |
| Calcium dodecylbenzenesulphocate | 3.0 – 5.0 | 26264-06-2 | 247-557-8 | <p>Skin Irrit. 2: H315: Causes skin irritation.</p> <p>Eye Dam. 1: H318: Causes serious eye damage.</p> <p>Aquatic Chronic 4: H413: May cause long lasting harmful effects to aquatic life.</p> <p>Acute Tox. 4: H302: Harmful if swallowed.</p> <p>Acute Tox. 4: H312: Harmful in contact with skin.</p> <p>Acute Tox. 4: H332: Harmful if inhaled</p> <p>Aquatic chronic 3: H412: Harmful to aquatic life with longlasting effects</p> <p>Eye Irrit. 2: H 319: Causes serious eye irritation</p> | - |

Full text of R and S-phrases: see section 15.

4) First Aid Measures:

Inhalation:

Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and at rest. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Maintain the airway and administer oxygen if required. Treat symptomatically and supportively.
Seek medical assistance immediately.

Skin contact:

Remove all contaminated clothing, shoes and leather goods immediately. Gently wipe off any excess chemical. Wash skin thoroughly and gently with water and soap, if available, with polyethyleneglycol 400, subsequently rinse with water. Do not rub the skin. Seek medical advice if needed.

Eye contact:

In case of eye contact, immediately flush the eyes with clean, gently flowing lukewarm water for at least 20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing the eye. Seek medical attention if irritation develops and persists.

Ingestion

Have the victim rinse their mouth out with water if the patient is alert and able. Keep the patient at rest. Treat symptomatically and supportively. **Do not induce vomiting.** For advice, contact the National Poisons Centre. **Seek medical assistance**

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| <p>Most important symptoms and effects, acute and delayed:</p> <p>Indication of immediate medical attention and special treatment needed: Advice to physician</p> | <p>immediately. Risk of product entering lungs on vomiting after ingestion.</p> <p>None known</p> <p>Local treatment: Initial treatment: Symptomatic.</p> <p>Systemic treatment: Initial treatment: Symptomatic. Gastric lavage is not normally required. However, if a significant amount (more than a mouthful) has been ingested, administer activated charcoal and sodium sulphate. No specific antidote is known.</p> |
| <p>5) Fire-Fighting Measures:</p> | |
| <p>Extinguishing Media:</p> <p>Unsuitable extinguishing media:</p> <p>Fire Fighting:</p> | <p>Water fog or fine spray, alcohol-resistant foam, carbon dioxide or dry chemical.</p> <p>Do not use high volume water jet, due to contamination risk.</p> <p>Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire.</p> <p>Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal.</p> <p>Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Do not scatter the material. Avoid pollution of waterways.</p> <p>UNUSUAL FIRE OR EXPLOSION HAZARDS: Generating poisonous and corrosive fumes containing: carbon monoxide, nitrogen oxides and sulfur.</p> |
| <p>Protective clothing:</p> | <p>Full protective clothing and self-contained breathing apparatus</p> |
| <p>6) Accidental Release Measures:</p> | |
| <p>Personal precautions:</p> <p>Occupational spill:</p> | <p>Wear the appropriate safety clothing and eye / face protection. For personal protection see Section 8.</p> <p>Keep people away from, and upwind of, the spill or leak.</p> <p>Wear protective clothing. Clear area of unprotected personnel. Contain and absorb liquid spills with liquid binding material or inert material such as sand, silica gel, acid binder, universal binder, sawdust. . Dike, for large spills, to prevent contamination of local water sources. Wash area with water and detergent and absorb with further inert material. 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.</p> |
| <p>7) Handling & Storage:</p> | |
| <p>Handling:</p> <p>Storage:</p> | <p>Use good personal hygiene. Avoid contact with skin and eyes. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use.</p> <p>APPROVED HANDLER: This product must be under the control of an approved handler when applied in a wide dispersive manner; or used by a commercial contractor.</p> <p>Store in the original container tightly closed and in a locked, dry, cool, well-ventilated area away from foodstuffs, fertilisers, seeds, drink, pharmaceuticals or cosmetics. Store in compliance with local regulations. Protect from excessive heat and cold. Keep away from children or uninformed persons. Keep away from combustible material. No smoking. Keep away from heat and sources of ignition. Keep away from direct sunlight. Protect from freezing.</p> |
| <p>8) Exposure Control / Personal Protection:</p> | |

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.

Components with workplace control parameters

PERSONAL PROTECTIVE EQUIPMENT:

Clothing:

Respiratory protection:

Gloves:

Eye protection:

Emergency eye wash:

| Component | Exposure limit(s) | Type of exposure limit |
|-----------|------------------------------|------------------------|
| Oxadiazon | 0.28 mg/m ³ (TWA) | TWA |

Consult supplier to confirm that the equipment is suitable.

Wear standard coveralls and Category 3 Type 6 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester / cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently. If the chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by the manufacturer,

Wear respirator with an organic vapours and gas filter mask (protection factor 10) confirming to EN140 type A or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source, e.g. containment and / or local extract ventilation. Always follow the respirators manufacturer's instructions regarding wearing and maintenance.

Chemically resistant gloves. CE marked (or equivalent) nitrile rubber gloves (minimum thickness 0.4 mm). Wash when contaminated and dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Chemical safety goggles (conforming to EN166, Field of Use = 5 or equivalent)

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.

9) Physical & Chemical Properties:

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| Form: | Liquid |
| Colour: | Brown uniform liquid |
| Odour: | Characteristic |
| Odour threshold | Not determined |
| Solubility: | Emulsifies in water |
| pH: | 4.0 – 7.0 |
| Melting point / Freezing point | No data available |
| Initial boiling point and boiling range | No data available |
| Flash point: | 45 - 50 °C |
| Evaporation rate: | Not applicable |
| Flammability (solid, gas) | Not flammable |
| Upper/ lower flammability or explosive limits: | No hazard is expected as long as the product is used appropriately and in accordance with the intended use. |
| Vapour pressure: | No data available |
| Vapour density: | No data available |
| Relative density: | Approximately 1.02 g/L |
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature: | No data available |
| Viscosity: | No data available |

10) Stability & Reactivity:

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| Reactivity: | No hazardous reactions known. Hazardous polymerisation does not occur. Combustion or thermal decomposition will evolve toxic and irritating vapours. |
| Stability: | When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Avoid strong basic, acidic or oxidising materials. |

None under normal conditions of storage and of use. When heated to decomposition, irritant or dangerous fumes may be emitted.

Hazardous decomposition product(s):

Conditions to avoid:

This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Keep containers and surrounding areas well ventilated. Keep away from sources of sparks or ignition. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatible materials:

Incompatible with alkaline materials.

11) Toxicological Information: Based on data for active ingredient

Acute Oral : LD50: > 2 000 mg/kg, rat.

Acute Dermal : LD50: > 2 000 mg/kg, rabbit.

Acute Inhalation : > 5.0 mg/ L, (air)

Aspiration toxicity:

Skin irritation: Rabbit: Irritating to skin

Eye irritation : Rabbit: Irritating to eyes.

Sensitization : Guinea pig: Not a sensitiser

Mutagenicity: The statement has been derived from the properties of the active ingredient. Tests revealed no mutagenic or genotoxic potential.

Carcinogenicity: The statement has been derived from the properties of the active. Oxadiazon, at high dose levels, caused an increased incidence of tumours in the following organ(s): liver. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

Reproductive toxicity: The statement has been derived from the properties of the active. Oxadiazon caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Oxadiazon is related to parental toxicity.

Teratogenicity: The statement has been derived from the properties of the active. Tests revealed no indication of developmental toxic effects at dosage rates that were not toxic to the parent animals.

Repeated dose toxicity: The statement has been derived from the properties of the active. Oxadiazon caused specific target organ toxicity in experimental animal studies in the following organ(s): liver, blood. The observed effects do not appear to be relevant for humans.

12) Ecological Information: Based on technical material

Bees : LD₅₀, µg/bee >400

Birds : Acute oral LD₅₀ (24 d) for mallard ducks >1000, bobwhite quail >2150 mg/kg.

Fish : LC₅₀ (96 h) for rainbow trout and bluegill sunfish 1.2 mg/l.

Daphnia : EC₅₀ (48 h) >2.4 mg/l.

Algae : EC₅₀ 6–3000 µg/l.

Worms : Not toxic at recommended rate.

Soil micro-organisms: NA

Persistence and degradability:

Environment Strongly adsorbed by soil colloids and humus, with very little migration or leaching. Negligible loss due to volatilisation. DT₅₀ in soil c. 3–6 mo. See D. Ambrosi *et al.*, *J. Agric. Food Chem.*, 1977, **25**, 868. K_{oc} 1400 (silt loam) to 3200 (sand) at 25 °C.

Bioaccumulation: Bioconcentration factor (BCF) Oxadiazon: 243. Does not bioaccumulate.

Biodegradability: Oxadiazon: Not rapidly biodegradable

Koc: Oxadiazon: Koc: 1294

Mobility in soil: Oxadiazon: Slightly mobile in soil.

Results of PBT and vPvB assessment:

Oxadiazon: This substance is not considered to be persistent, Bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very Bioaccumulative (vPvB)

Other adverse effects:

Marine pollutant

13) Disposal Considerations:

Waste Disposal: Do not contaminate ponds, waterways or ditches with any chemical or used container. Do not dispose of waste into the sewer. Where possible, recycling is preferable to disposal or incineration. If recycling is not practicable, dispose of in accordance with local and national regulations

Do not contaminate water, food or feed by disposal.

Container Disposal: Refer to the product label for instructions.

Invert the empty container over the spraying or mixing tank and allow it to drain for at least thirty seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to at least 30% of the volume of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner

14) Transportation Information:

UN NUMBER: 1993

Road Transport ADR/ RID:

Class: 9

Packaging group: III

Proper shipping name: FLAMMABLE, LIQUID, N.O.S. (Oxadiazon, Toluene)

Environmental hazards: Environmentally hazardous

Special precautions for user: None known.

Maritime Transport IMDG / IMO:

Class: 9

Packaging group: III

Proper shipping name: FLAMMABLE, LIQUID, N.O.S. (Oxadiazon, Toluene)

Environmental hazards: Environmentally hazardous

Special precautions for user: None known.

MARINE POLLUTANT

Air (ICAO / IATA):

Class: 9

Packaging group: III

Proper shipping name: FLAMMABLE, LIQUID, N.O.S. (Oxadiazon, Toluene)

Environmental hazards: Environmentally hazardous

Special precautions for user: None known.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC code): NA

15) Regulatory Information:**Safety, health and environmental regulations / legislation specific for the substance or mixture.**

To avoid risks to man and the environment, comply with all instructions for use.

Advice on handling of the product can be found in sections 7 and 8 of this safety data sheet.

For the proper and safe use of this product, please refer to the approval conditions indicated in the product label.

Labelling according to EC directives:

Hazardous components which must be listed on the label: Oxadiazon, Toluene

Symbol(s):

Xi : Irritant

N : Dangerous for the environment.

Xn: Harmful

R-phrase(s):

R10: Flammable

R 20/22: Harmful by inhalation and if swallowed

R 36/37/38: Irritating to eyes, respiratory system and skin

R43: May cause sensitisation by skin contact.

R50/53: Very toxic to aquatic organisms, may cause long – term adverse effects in the aquatic environment.

R65: Harmful: May cause lung damage if swallowed.

R67: Vapours may cause drowsiness and dizziness.

S-phrase(s):

S1/2 - Keep locked up and out of reach of children.

S3/79 – Keep container tightly closed in a cool, well-ventilated place.

S13 – Keep away from food, drink and animal feeding stuffs.

S15 – Keep away from heat.

S20/21 – When using, do not eat drink or smoke.

S26 – In case of contact with eyes, rinse immediately with plenty of water.

S29 – After contact with skin wash immediately with water.

S35 – This material and its container must be disposed of in a safe way.

S36/37/39 – Wear suitable protective clothing, gloves and eye / face protection.

S45 – In case of an accident or if you feel unwell, seek medical advice.
S57 - Use appropriate containment to avoid environmental contamination.
S60 - This material and its container must be disposed of as hazardous waste.
S61- Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Hazard statements:

H226: Flammable liquid and vapour
H302: Harmful if swallowed
H304: May be fatal if swallowed and enters airways
H312: Harmful in contact with skin.
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H318: Causes serious eye irritation
H332: Harmful if inhaled
H336: May cause drowsiness or dizziness
H373: May cause damage to organs through prolonged or repeated exposure
H400: Very toxic to aquatic life
H410: Very toxic to aquatic life with long-lasting effects.
H412: Harmful to aquatic life with longlasting effects
H413 May cause long lasting harmful effects to aquatic life.

EUH401 To avoid risks to human health and the environment, comply with the instructions for us.

Precautionary statements:

P240: Ground / bond container and receiving equipment
P280: Wear protective gloves / protective clothing / eye protection
P308 + P311: If exposed or concerned: Call a POISON CENTER / doctor / physician.
P501: Dispose of contents / container in accordance with local regulations

16. Other Information

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS 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 SDS 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 this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS. The information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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