

**Bayer Environmental Science**  
**Safety Data Sheet**  
**Ronstar® Turf and Ornamental Herbicide**



Version 2 / AUS  
 102000001758

Revision Date: 13.09.2012

**SECTION 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER**

Product name: **Ronstar® Turf and Ornamental Herbicide**  
 Other names: None  
 Product code (UVP): 05924065  
 Recommended use: Herbicide

Chemical formulation: Granule (GR)

Company: Bayer CropScience Pty. Ltd.  
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**SECTION 2. HAZARDS IDENTIFICATION**

**Emergency Overview**

HAZARDOUS SUBSTANCE DANGEROUS GOODS

Hazardous classification: Hazardous (National Occupational Health and Safety Commission - NOHSC).

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

S-phrases: See sections 4, 5, 6, 7, 8, 10, 13.

ADG Classification: Not a "Dangerous good" for transport by road or rail according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. For transport by sea, Ronstar Turf and Ornamental Herbicide is a MARINE POLLUTANT. See Section 14.

SUSMP classification (Poison Schedule): Schedule 6 (Standard for the Uniform Scheduling of Medicines and Poisons).

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical nature: Oxadiazon 20 g/L

Chemical Name	CAS-No.	Concentration [%]
Oxadiazon	19666-30-9	2.00
Diacetone alcohol	123-42-2	> 1.00 - < 20.00
Nonylphenol ethoxylate	68412-54-4	> 0.10 - < 2.50
Other ingredients (non-hazardous) to 100 %		



**SECTION 4. FIRST AID MEASURES**

**If poisoning occurs, immediately contact a doctor or Poisons Information Centre (telephone 13 11 26), and follow the advice given. Show this Safety Data Sheet to the doctor.**

**Inhalation**

Move the victim to fresh air and keep at rest. If symptoms persist, call a physician.

**Skin contact**

Wash off thoroughly with plenty of soap and water, if available with polyethyleneglycol 400, subsequently rinse with water. If symptoms persist, call a physician.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.

**Ingestion**

Keep at rest. Rinse mouth. Do NOT induce vomiting. If symptoms persist, call a physician.

**Notes to physician**

**Symptoms**

Local: To date no symptoms are known.  
Systemic: To date no symptoms are known.

**Treatment**

Local treatment: Initial treatment: Symptomatic.  
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.  
There is no specific antidote.

**SECTION 5. FIRE FIGHTING MEASURES**

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Extinguishing media which should not be used for safety reasons**

High volume water jet.

**Hazards from combustion products**

Dangerous gases are evolved in the event of a fire.

**Precautions for fire-fighting**

In the event of fire, wear self-contained breathing apparatus.  
Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat.  
Whenever possible, contain fire-fighting water by diking area with sand or earth.

**Hazchem Code** 2Z



**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

- Keep people away from and upwind of spill/leak.
- Avoid dust formation.
- Avoid contact with spilled product or contaminated surfaces.
- When dealing with a spillage do not eat, drink or smoke.

**Environmental precautions**

- Do not allow to get into surface water, drains and ground water.

**Methods for cleaning up**

- Use approved industrial vacuum cleaner for removal.
- Keep in suitable, closed containers for disposal.
- Clean floors and contaminated objects with plenty of water.

**Additional advice**

- Information regarding safe handling, see section 7.
- Information regarding personal protective equipment, see section 8.
- Information regarding waste disposal, see section 13.
- Check also for any local site procedures.

**SECTION 7. HANDLING AND STORAGE**

**Handling**

Hygiene measures:

- When using, do not eat, drink or smoke.
- Remove soiled clothing immediately and clean thoroughly before using again.
- Contaminated work clothing should not be allowed out of the workplace.
- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
- Wash hands immediately after work, if necessary take a shower.

Advice on protection against fire and explosion:

- Dust may form explosive mixture in air.

**Storage**

Requirements for storage areas and containers:

- Keep out of the reach of children.
- Store in a place accessible by authorized persons only.
- Keep away from direct sunlight.
- Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage:

- Keep away from food, drink and animal feedingstuffs.

**SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Oxadiazon	19666-30-9	0.28 mg/m <sup>3</sup> (TWA)		OES BCS

# Bayer Environmental Science

## Safety Data Sheet

### Ronstar® Turf and Ornamental Herbicide



Version 2 / AUS  
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Diacetone alcohol	123-42-2	238 mg/m <sup>3</sup> / 50 ppm (TWA)	12 2011	AU OEL
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For further details on the Occupational Exposure Standards, see Section 16.

#### Personal protective equipment - End user

General advice No special protective equipment required.

#### Engineering controls

Advice on safe handling:

No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.

Avoid dust formation.

Ensure adequate ventilation.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Appearance

Form: Granular  
Colour: Grey-beige  
Odour: Weak, characteristic

#### Safety data

pH: No data available  
Flash point: No data available  
Ignition temperature: No data available  
Upper explosion limit: No data available  
Lower explosion limit: No data available  
Vapour pressure: No data available  
Relative vapour density: No data available  
Density: No data available  
Bulk density: ca. 670 kg/m<sup>3</sup>  
Water solubility: Miscible  
Partition coefficient: n-octanol/water: No data available

### SECTION 10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions.  
Conditions to avoid: Extremes of temperature and direct sunlight.



Hazardous reactions: No hazardous reactions when stored and handled according to prescribed instructions.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Potential health effects**

Inhalation: May irritate respiratory tract.  
Skin contact: May irritate the skin.  
Eye contact: May irritate the eyes.  
Ingestion: Low toxicity if swallowed, but may irritate mucous membranes of mouth and throat.

**Animal toxicity studies**

Acute oral toxicity: LD<sub>50</sub> (rat) > 2,000 mg/kg  
Acute inhalation toxicity: LC<sub>50</sub> (rat) > 5.0 mg/L  
Exposure time: 4 h  
Acute dermal toxicity: LD<sub>50</sub> (rat) > 2,000 mg/kg  
Skin irritation: No skin irritation (rabbit).  
Eye irritation: No eye irritation (rabbit).  
Sensitisation: Non-sensitizing (guinea pig).

**Assessment neurotoxicity**

Oxadiazon did not demonstrate the potential to cause neurotoxicity in standard toxicity studies using laboratory animals.

**Assessment mutagenicity**

Not mutagenic in Ames Test.

**Assessment carcinogenicity**

Causes tumours through peroxisome proliferation. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

**Assessment developmental toxicity**

No indication of developmental toxicity in animal tests.

**Further information**

The above values are calculated as prescribed by the "Conventional Method" according to 1999/45/EC.

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity effects**

Toxicity to fish: LC<sub>50</sub> (*Oncorhynchus mykiss* (Rainbow trout)) 1.2 mg/L  
Exposure time: 96 h  
The value mentioned relates to the active ingredient oxadiazon.



Toxicity to aquatic invertebrates:	EC <sub>50</sub> ( <i>Daphnia magna</i> (Water flea) > 2.4 mg/L Exposure time: 48 h The value mentioned relates to the active ingredient oxadiazon.
Toxicity to aquatic plants:	EC <sub>50</sub> ( <i>Desmodium subspicatus</i> ) 0.0056 mg/L Growth rate Exposure time: 72 h The value mentioned relates to the active ingredient oxadiazon.
Bioaccumulation:	<i>Lepomis macrochirus</i> (Bluegill sunfish) Bioconcentration factor (BCF): 1,111 The value mentioned relates to the active ingredient oxadiazon.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Shake empty bag into granule applicator. DO NOT dispose of undiluted chemicals on site. Puncture, shred and bury empty containers in a local authority landfill. If no landfill is available bury the empty containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt. Dispose of waste product via a reputable disposal contractor".

**SECTION 14. TRANSPORT INFORMATION**

**ADG**

UN-Number	<b>3077</b>
Class	9
Subsidiary Risk	None
Packaging group	III
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (OXADIAZON MIXTURE)
Hazchem Code	2Z

According to AU01, Environmentally Hazardous Substances in packagings, IBC or any other receptacle not exceeding 500 kg or 500 L are not subject to the ADG Code.

**IMDG**

UN-Number	<b>3077</b>
Class	9
Subsidiary Risk	None
Packaging group	III
EmS	F-A , S-F
Marine pollutant	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (OXADIAZON MIXTURE)

**IATA**

UN-Number	<b>3077</b>
Class	9
Subsidiary Risk	None
Packaging group	III
Environm. Hazardous Mark	YES
Description of the goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.



(OXADIAZON MIXTURE )

**SECTION 15. REGULATORY INFORMATION**

Registered according to the Agricultural and Veterinary Chemicals Code Act 1994.

Australian Pesticides and Veterinary Medicines Authority approval number: 62461.

See also Section 2.

**SECTION 16. OTHER INFORMATION**

**Trademark information**

Ronstar® is registered trademark of the Bayer Group.

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

**Further details on the Occupational Exposure Standards mentioned in Section 8:**

CEILING: Ceiling Limit Value

OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

PEAK: Exposure Standard - Peak means a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

STEL: Exposure standard - short term exposure limit (STEL): A 15 minute TWA exposure which should not be exceeded at any time during a working day even if the eight-hour TWA average is within the TWA exposure standard. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times per day. There should be at least 60 minutes between successive exposures at the STEL.

SKIN\_DES: Skin notation: Absorption through the skin may be a significant source of exposure.

TWA: Exposure standard - time-weighted average (TWA): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day working week.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Reason for revision: Changed name from Material Safety Data Sheet to Safety Data Sheet.

END OF SDS