
Safety Data Sheet

Ronstar Liquid
Revised 06.08.2007

Certis

Page 1 of 6

1. Substance / preparation and company name

Ronstar Liquid

Use of the Substance/ Preparation

Horticultural herbicide

Company identification

Certis

1b Mills Way, Boscombe Down Business Park, Amesbury, Wiltshire. SP4 7RX

Telephone: 01980 676500 Fax: 01980 626555

Emergency contacts:

For advice on medical emergencies, fires, spillages or chemical hazards ONLY – phone 0870 190 6777.

For further advice for medical professionals - The National Poisons Information Service: Tel: 0870 600 6266 (UK only) or Dublin Tel: 00353 1379 964/379966.

For further advice for veterinary surgeons: 020 7635 9195

2. Composition / information on ingredients

Chemical name	Concentration (%)	CAS	Symbol	R-phrases
Oxadiazon	25.40	19666-30-9	N	R50/53
Ethoxylated polyarylphenol	>1.00 - <5.00	99734-09-5		R52/53
Branched calcium dodecyl Benzene sulfonate	>1.00 - <5.00	68953-96-8	Xi, N	R38,
2-Methylpropan-1-ol	>1.00 - <5.00	78-83-1	Xi	R51/53 R10 R37/38 R41 R67
Cyclohexanone	>5.00 - <25.00	108-94-1	Xn	R10 R20
Solvent naphtha (petroleum), heavy arom.	>25.00 - <50.00		Xn, N	R65 R66 R67 R51/53

3. Possible hazards

Flammable.

Irritating to eyes and skin.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Harmful: may cause lung damage if swallowed.

Vapours may cause drowsiness and dizziness.

4. First aid measures

General advice: Remove contaminated, soaked clothing immediately and dispose of safely.

Inhalation: Move to fresh air. Keep patient warm and at rest. If symptoms persist, call a physician.

Skin contact: Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Eye contact: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion: Obtain medical attention. Do not induce vomiting. Rinse mouth. Keep at rest.

Notes to physician

Safety Data Sheet

Ronstar Liquid
Revised 06.08.2007

Certis

Page 2 of 6

Symptoms: Local: May cause irritation to skin and mucous membranes.

Symptoms: Systemic: To date no symptoms are known.

Treatment: Local treatment: Initial treatment should be symptomatic and supportive.

Treatment: Systemic treatment: Initial treatment should be symptomatic and supportive.

5. Fire fighting measures

Suitable extinguishing media: Water spray, alcohol-resistant foam, dry powder, carbon dioxide (CO₂)

Extinguishing media which must not be used for safety reasons: High volume water jet.

Specific hazards during fire fighting: In case of fire the evolution of dangerous gases is possible.

Special protective equipment for fire-fighters: In the event of fire and/or explosion do not breathe fumes. Wear self contained breathing apparatus for fire-fighting if necessary.

Further information: 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 bunding area with sand or earth.

6. Accidental release measures

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

Environmental precautions: Do not discharge into the drains/ surface water/ groundwater. If spillage enters drains leading to sewage works inform local water company immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

Methods for cleaning up: Take up with absorbent material (e.g. sand, diatomaceous earth or a proprietary absorbent material). 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.

7. Handling and storage

Handling:

Advice on safe handling: No specific precautions required when handling unopened packs/ containers; follow relevant manual handling advice. Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion: The product is flammable. Keep away from sources of ignition - No smoking. Vapours may form explosive mixture with air.

Storage:

Requirements for storage areas and containers: Keep containers tightly closed in a cool, well-ventilated place. Store in a place accessible by authorised persons only. Keep away from direct sunlight. Protect against frost.

Advice on common storage: Keep away from food, drink and animal feedingstuffs.

Storage temperature: 0-30°C

Suitable materials: Coextruded containers with an internal barrier layer made of ethylene vinyl alcohol copolymer (EVOH). Coextruded containers with an internal barrier layer made of polyamide (PA). Tinplate with interior lacquer. Black mild steel sheet with interior coating.

Safety Data Sheet

Ronstar Liquid
Revised 06.08.2007

Certis

Page 3 of 6

8. Exposure controls / personal protection

Refer to COSHH assessment (Control of Substances Hazardous to Health Regulations 1999 as amended). Engineering controls should be used in preference to personal protective equipment wherever practicable.

Components with workplace control parameters

Components	CAS No	Control parameters	Update	Basis
2-Methylpropan-1-ol	78-83-1	154 mg/m ³ /50ppm (TWA)	2005	EH40 WEL
		231 mg/m ³ /75ppm (STEL)	2005	EH40 WEL
Cyclohexanone	108-94-1	10 ppm (TWA)	2005	EH40 WEL
		20 ppm (STEL)	2005	EH40 WEL
		40.8 mg/m ³ /10ppm (TWA)	05/2003	EU ELV
		81.6 mg/m ³ /20ppm (STEL)	05/2003	EU ELV

Personal protective equipment

Respiratory protection: Wear respirator conforming to EN140 type A filter. 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 respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection: Wear CE marked (or equivalent) nitrile rubber gloves (minimum thickness 0.40 mm). Wash when contaminated. Dispose of when contaminated inside, when perforated or when contamination outside cannot be removed. Wash hands always before eating, drinking, smoking or using the toilet.

Eye protection: Wear goggles conforming to EN166 (Field of Use 5 or equivalent).

Skin and body protection: Wear standard coverall and Type 6 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 chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

Hygiene measures: When using, do not eat, drink or smoke. Remove soiled clothing immediately. Remove soaked clothing immediately. Clean hands and face at work intervals and after work. Work in adequately ventilated room.

9. Physical and chemical properties

Appearance:	Brown liquid
Odour:	Aromatic
Flash point:	55°C
Ignition temperature:	>450°C The data refers to solvent naphtha petroleum
Upper explosion limit:	7.00% (V) The data refers to solvent naphtha petroleum
Lower explosion limit:	0.8% (V) The data refers to solvent naphtha petroleum
Relative vapour density:	1.00 The data refers to solvent naphtha petroleum
Density:	ca. 0.985 g/cm ³ at 20°C
Other information:	The product is flammable

10. Stability and reactivity

Conditions to avoid: Extremes of temperature and direct sunlight.

Materials to avoid: None.

Hazardous reactions: No hazardous reactions when stored and handled according to prescribed instructions. Stable under recommended storage conditions.

Safety Data Sheet

Ronstar Liquid
Revised 06.08.2007

Certis

Page 4 of 6

11. Toxicological information

Acute oral toxicity:	LD50 (rat):	>2000 mg/kg
Acute inhalation toxicity:	LC50 (rat):	>5.04 mg/l
	Exposure time:	4h
Acute dermal toxicity:	LD50 (rat):	>2000 mg/kg
Skin irritation:	rabbit:	Irritating to skin
Eye irritation:	rabbit:	Irritating to eyes
Sensitization:	guinea pig	Non-sensitizing (OECD Test Guideline 406, Buehler Test)

Further information

When inhaled in high concentration, the solvent vapours cause a narcotic effect.
The toxicological data refer to a similar formulation.

12. Ecological information

Elimination information

Bioaccumulation: Bluegill sunfish
Bioconcentration factor (BCF): 1,111
The value mentioned relates to the active ingredient oxadiazon

Ecotoxicity effects:

Toxicity to fish: LC50 (*Oncorhynchus mykiss* (Rainbow trout): 1.2 mg/l
Exposure time: 96h
The value mentioned relates to the active ingredient oxadiazon

Toxicity to daphnia: EC50 (Water flea (*Daphnia magna*)): >2.4 mg/l
Exposure time: 48h
The value mentioned relates to the active ingredient oxadiazon

Toxicity to algae: EC50 (*Skeletonema costatum*): 0.0056 mg/l
Exposure time: 120h
The value mentioned relates to the active ingredient oxadiazon

13. Disposal considerations

Product: In accordance with current regulations may be taken to waste disposal site or incineration plant, after consultation with site operator and/or with the responsible authority. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging: Small containers (<10 l or <10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times. Add washings to sprayer at time of filling. Dispose of empty and cleaned packaging safely. Large containers (>25 l or >25 kg) should not be rinsed or re-used for any other purpose. Return large containers to supplier. Follow advice on product label and/or leaflet.

Waste key for the unused product: 020108 agrochemical waste containing dangerous substances.

Safety Data Sheet

Ronstar Liquid
Revised 06.08.2007

Certis

Page 5 of 6

14. Transport information

ADR/RID/ADNR

UN no: 1993
Labels: 3
Packaging group: III
Hazard no: 30
Description of the goods: 1993 FLAMMABLE LIQUID, N.O.S. (Oxadiazon, cyclohexanone solution)
Special provision: 640E

IMDG

UN no: 1993
Class: 3
Packing group: III
EmS: F-E, S-E
Marine pollutant: Marine pollutant
Description of the goods: FLAMMABLE LIQUID, N.O.S. (Oxadiazon, Cyclohexanone solution)

IATA

UN no: 1993
Class: 3
Packing group: III
Description of the goods: FLAMMABLE LIQUID, N.O.S. (Oxadiazon, Cyclohexanone solution)

UK 'Carriage' Regulations

UN no: 1993
Class: 3
Packing group: III
Hazard identification no: 30
Emergency action code: 3Y
Description of the goods: FLAMMABLE LIQUID, N.O.S. (Oxadiazon, Cyclohexanone solution)

15. Regulatory information

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP3

Hazard symbols: Xn Harmful
N Dangerous for the environment

Risk phrases: R10 Flammable
R36/38 Irritating to eyes and skin
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

Safety phrases: S35 This material and its container must be disposed of in a safe way
S57 Use appropriate containment to avoid environmental contamination
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Classification according to specific UK Regulations

The labelling information below is that which has been approved under 'The Control of Pesticides Regulations 1986' and/or 'Part III of the Food and Environment Protection Act 1985' and/or 'Plant Protection Product Regulations 1999' and any subsequent amendments and may differ from that indicated by any toxicological and/or other testing otherwise indicated in this 'Safety Data Sheet'.

Safety Data Sheet

Ronstar Liquid
Revised 06.08.2007

Certis

Page 6 of 6

Hazard symbols: Xn Harmful
N Dangerous for the environment

Risk phrases: R10 Flammable
R36/38 Irritating to eyes and skin
R52/53 Harmful 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

Safety phrases: S35 This material and its container must be disposed of in a safe way
S57 Use appropriate containment to avoid environmental contamination
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Exceptional labelling

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

Further information

WHO classification: II (Moderately hazardous)

16. Other information

Text of R phrases mentioned in section 2:

R10 Flammable

R20 Harmful by inhalation

R37/38 Irritating to respiratory system and skin

R38 Irritating to skin

R41 Risk of serious damage to eyes

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

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R65 Harmful: may cause lung damage if swallowed

R66 Repeated exposure may cause drowsiness and dizziness

R67 Vapours may cause drowsiness and dizziness

Prepared 13.01.2004

Revision 1: 06.08.2007: Section 1, 2, 8, 15

DISCLAIMER OF LIABILITY. The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.
