

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Product name : Rhino DS
Product code : CE 015 0074.1
Type of formulation : Dustable powder (DP)
Active Ingredient : Flutolanil

1.2. Relevant identified uses of the substance or mixture and uses advised against**2.1. Relevant identified uses**

Main use category : Plant protection product for professional use. Agriculture.
Use of the substance/mixture : Fungicide (Seed treatment)

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

CERTIS UK
1 Riverside
Granta Park
Great Abington
Cambridgeshire CB21 6AD
United Kingdom
Tel: +44 (0)845 373 0305
Fax: +44 (0)1223 891210
Email: certis@certiseurope.co.uk
Website: www.certiseurope.co.uk

1.4. Emergency telephone number

Emergency number : Certis Carechem24 multilingual 24 hours emergency number: +44 (0) 870 190 6777.
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: 0035 3 137 99 64/379966.
For further advice for veterinary surgeons: 020 7635 9195.

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Eye Irrit. 2 H319

Aquatic Chronic 3 H412

Full text of H-phrases: see section 16.

Classification according to Directive 67/548/EEC or 1999/45/EC

Xi; R36

N; R51/53

Full text of R-phrases: see section 16.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

:



GHS07

Signal word (CLP)

: Warning

Hazard statements (CLP)

: H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P264 - Wash hands thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P391 - Collect spillage.
P501 - Dispose of contents/container to a suitable disposal site in accordance with local and national regulations.

EUH phrases

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

Labelling according to Directive 67/548/EEC or 1999/45/EC

Hazard symbols

:



Xi - Irritant



N - Dangerous for the environment

R-phrases

: R36 - Irritating to eyes
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S-phrases

: S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S35 - This material and its container must be disposed of in a safe way.
S57 - Use appropriate container to avoid environmental contamination.

2.3. Other hazards

No additional information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable.

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Flutolanil	(CAS No) 66332-96-5	5 - 10	N; R50/53

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Flutolanil	(CAS No) 66332-96-5	5 - 10	Aquatic Chronic 2, H411

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : In the event of any complaints or symptoms, avoid further exposure.
- First-aid measures after inhalation : IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
If symptoms persist call a doctor.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water.
Remove contaminated clothing and shoes.
If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Consult an eye specialist.
- First-aid measures after ingestion : IF SWALLOWED: Immediately call a POISON CENTER or doctor.
Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Irritating to eyes.

Mild irritant to skin.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray
Dry chemical powder
Alcohol resistant foam
Carbon dioxide (CO₂).

Unsuitable extinguishing media : Jet of water.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Combustion or thermal decomposition may generate toxic vapours: chlorine compounds, nitrogen oxides, carbon monoxide, hydrocarbons.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire.
- Fight fire from safe distance and protected location.
- Do not breathe fumes
- Cool closed containers exposed to fire with water spray
- If possible, take the containers out of dangerous zone.
- Contain fire-fighting water with dikes or absorbents to prevent migration and entry into sewers or streams.
- Protection during firefighting : Wear suitable protective clothing, gloves, eye/face protection and respiratory protection
- Wear a self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Protective equipment : Wear suitable protective clothing, gloves and eye or face protection.
- Emergency procedures : Evacuate area.
- Ensure adequate ventilation.
- Avoid direct contact with the substance.
- Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.2. Environmental precautions

- Prevent entry to sewers and public waters.
- Notify the authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.
- Once absorbed collect spilled material with shovels, buckets and place in closed containers and label properly.
- Remove as chemical waste, according to national or local legislation.
- In the event of major spillage: contact an expert.

6.4. Reference to other sections

- See sections 7-8-13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Read label before use.
- Avoid contact with eyes, skin, nose and mouth.
- Wear suitable protective clothing, gloves and eye/face protection.
- Opened containers must be carefully closed and kept upright to avoid leakage.

- Hygiene measures : Always wash your hands immediately after handling this product, and once again before leaving the workplace.
- Contaminated work clothing should not be allowed out of the workplace.
- Do not eat, drink or smoke when using this product.
- Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Provide adequate ventilation.
- Storage conditions : Prevent unauthorised access.
- Store in dry, cool, well-ventilated area.
- Keep locked up and out of the reach of children.
- Keep in original containers, tightly closed.
- Keep away from food, drink and animal feedingstuffs.
- Protect against frost.
- Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Fungicide for agricultural use. Refer to the label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available.

8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Protective clothing. Protective goggles. Gloves. Dust/aerosol mask.



- Hand protection : Wear impervious gloves resistant to chemical. Nitrile rubber.
- Eye protection : Safety goggles or a face shield.
- Skin and body protection : Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots.
- Respiratory protection : Wear appropriate respirator for dust / organic vapors.
- Hygiene measures : Do not eat, drink or smoke while handling the product.
- Clean gloves with soap and water before removing.
- Wash hands and face with soap and water before eating, drinking or smoking.
- Clean equipment, premises and work clothes regularly.
- Work clothing should remain on the work area and stored separately from street clothes.
- Environmental exposure controls : Discharge into the environment must be avoided.
- Do not contaminate surface and groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : Powder.
- Colour : Pale green.

Odour	: Odourless.
Odour threshold	: No data available
pH	: 8.97
pH solution	: 1 %
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 104~107°C (Flutolanil)
Freezing point	: Not applicable.
Boiling point	: Not applicable.
Flash point	: Not applicable.
Self ignition temperature	: > 140 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: It has no flammable properties.
Vapour pressure	: 4.1×10^{-7} Pa (20°C) (Flutolanil)
Relative vapour density at 20 °C	: Not applicable.
Relative density	: No data available
Density	: 0.5573 g/ml
Solubility (Flutolanil)	: 8.01mg / L in water (20°C) 606g / L in acetone (20°C) 322g / L in methanol (20°C) 0.395g / L in hexane (20°C)
Log Pow	: 3.17 (Flutolanil)
Log Kow	: No data available
Viscosity, kinematic	: Not applicable.
Viscosity, dynamic	: Not applicable.
Explosive properties	: Product is not explosive.
Oxidising properties	: No oxidising properties.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product is stable at normal handling and storage conditions.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

Is not explosive and does not exhibit oxidant properties.

10.4. Conditions to avoid

No additional information available.

10.5. Incompatible materials

No additional information available.

10.6. Hazardous decomposition products

Combustion or thermal decomposition may generate toxic vapours: chlorine compounds, nitrogen oxides, carbon monoxide, hydrocarbons.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Acute toxicity : Not classified

Rhino DS	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat	> 5.13 mg/l/4h

Irritation	: Irritating to eyes.
Corrosivity	: Not classified
Sensitisation	: Not classified
Repeated dose toxicity	: Not classified
Carcinogenicity	: Not classified
Mutagenicity	: Not classified
Toxicity for reproduction	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Flutolanil (66332-96-5)	
LC50 Fishes (carp)	3.21 mg/l
LC50 (bluegill sunfish)	> 5.4 mg/l
EC50 Daphnia	> 6.8 mg/l
ErC50 Algae	> 3.2 mg/l

12.2. Persistence and degradability

Flutolanil (66332-96-5)	
Hydrolysis	Stabel to hydrolysis.
Photolysis	Half life 277 days in buffer solution (pH7, Xenon arc lamp)

12.3. Bioaccumulative potential

Flutolanil (66332-96-5)	
BCFk	100

12.4. Mobility in soil

No additional information available.

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

This mixture contains no substance considered to be very persistent and very bioaccumulative (vPvB).

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Apply triple washing procedure of the empty container and place the rinse water in the tank or container where the mixture is prepared. Handle empty containers and waste as established by the competent authorities.
-------------------------	--

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

14.6.1. Overland transport

Not applicable

14.6.2. Transport by sea

Not applicable

14.6.3. Air transport

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Contains no REACH candidate substance

15.1.2. National regulations

No additional information available.

15.2. Chemical safety assessment

No additional information available.

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
H411	Toxic to aquatic life with long lasting effects
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
Xi	Irritant