

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: LECTOR

Product code: 5350

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

Use of substance / mixture: Can be used as herbicide only.

1.3. Details of the supplier of the safety data sheet

Company name: Headland Agrochemicals

Rectors Lane

Pentre

Flintshire

CH5 2DH

United Kingdom

Tel: +44(0)1244 537370

Fax: +44(0)1244 532097

Email: flintshire.enquiry@fmc.com

1.4. Emergency telephone number

Emergency tel: +44(0)1244 537370

(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: N: R51/53

Classification under CLP: Aquatic Chronic 1: H410; -: EUH208; -: EUH401

Most important adverse effects: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Label elements:

Hazard statements: H410: Very toxic to aquatic life with long lasting effects.

EUH208: Contains 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

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

Signal words: Warning

Hazard pictograms: GHS09: Environmental



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Precautionary statements: P273: Avoid release to the environment.
P391: Collect spillage.
P501: Dispose of contents/container to hazardous or special waste collection point.

Label elements under CHIP:

Hazard symbols: Dangerous for the environment.



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

Safety phrases: S2: Keep out of the reach of children.
S23: Do not breathe spray.
S29: Do not empty into drains.
S61: Avoid release to the environment. Refer to special instructions / safety data sheets.

Precautionary phrases: Contains 1,2-benzisothiazolin-3-one. May produce an allergic reaction.
To avoid risks to man and the environment, comply with the instructions for use.
Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards and roads.
To protect aquatic organisms respect an unsprayed buffer zone of 5m to surface water bodies.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

FLORASULAM

EINECS	CAS	CHIP Classification	CLP Classification	Percent
604-488-1	145701-23-1	N: R50/53	Aquatic Chronic 1: H410; Aquatic Acute 1: H400	1-10%

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Consult a doctor if irritation develops.

Eye contact: Bathe the eye with running water for 15 minutes. Remove contact lenses, if present, after the first few minutes, then continue rinsing. Consult a doctor if irritation persists or problems with vision occur.

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Ingestion: Do not induce vomiting. Wash out mouth with water. Drink several glasses of water or milk. If vomiting occurs, rinse mouth and drink fluids again. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.

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

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: No data available.

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

Immediate / special treatment: Show this safety data sheet to the doctor in attendance. Immediate medical attention is required in case of ingestion. There is no known specific antidote for this substance. Gastric lavage and/or administration of activated charcoal can be considered. After decontamination, treatment should be directed at the control of symptoms and the clinical condition.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes. The essential breakdown products are volatile, toxic, irritant and inflammable compounds such as nitrogen oxides, sulphur dioxide, carbon monoxide, carbon dioxide, hydrogen fluoride and various fluorinated organic compounds.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Contaminated fire extinguishing water should not be discharged into drains, if preventable.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. Turn leaking containers leak-side up to prevent the escape of liquid. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Avoid and reduce mist formation as much as possible. In the case of large spills (1 ton or more), alert the appropriate authorities.

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6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding. Accidental release into water courses must be alerted to the appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Surface water drains within close vicinity of the spill should be covered. Spills on the floor or other impervious surface should be absorbed onto an absorptive material such as hydrated lime, universal binder, or other absorbent clays. Collect the contaminated absorbent in suitable containers. Rinse the area with water and industrial detergent. Absorb wash liquid onto absorbent and transfer to suitable containers. Spills which soak into the ground should be dug up and placed in suitable containers. Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal. Refer to section 13 of SDS for suitable method of disposal.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Material should be handled by mechanical means as much as possible. Ensure there is sufficient ventilation of the area. Exhaust gases should be filtered or treated otherwise. Clean protective clothing and protective equipment with soap and water after use. Collect all wash water and dispose of as hazardous waste.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor. The room should only be used for storage of chemicals, and without access to unauthorised persons or children. Food, drink, feed and seed should not be present. A hand wash station should be available.

7.3. Specific end use(s)

Specific end use(s): This product is a registered pesticide, which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: No data available.

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DNEL/PNEC Values

Hazardous ingredients:

FLORASULAM

Type	Exposure	Value	Population	Effect
DNEL	-	0.05 mg/kg.bw/day	-	Systemic
PNEC	Aquatic environmant	0.062 µg/l	-	-

8.2. Exposure controls

Engineering measures: When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping system non-hazardous before opening.

Respiratory protection: The product is not likely to present an airborne exposure concern during normal handling, but in the event of a discharge of the material which produces a heavy vapour or mist, workers should put on officially approved face mask or respiratory protection: Respiratory protection with universal filter type, including particle filter.

Hand protection: Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber. The breakthrough times of these materials for the product are unknown. Replace gloves frequently and limit work done manually.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Waterproof pants and apron of chemical resistant material or coveralls with polyethylene (PE) coating will be sufficient for short time exposure. Coveralls must be discarded after use if contaminated. In cases of prolonged exposure, barrier laminate coveralls may be required.

Environmental: Refer to specific Member State legislation for requirements under Community environmental legislation.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: White

Odour: Gasoline-like.

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Dispersible in water

Viscosity: 1048 mPa.s at 20°C

Melting point/range°C: <0

Flash point°C: None

Autoflammability°C: >600

Relative density: 1.04

pH: 4.04 at 25°C

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9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: No data available.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes. See subsection 5.2.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	>2000	mg/kg
DERMAL	RAT	LD50	>2000	mg/kg
VAPOURS	RAT	4H LC50	>5.07	mg/l

Hazardous ingredients:

FLORASULAM

DERMAL	RAT	LD50	>2000	mg/kg
INHALATION	RAT	4H LC50	>5	mg/l
ORAL	RAT	LD50	>5000	mg/kg

Symptoms / routes of exposure

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

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Delayed / immediate effects: No data available.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values:

Species	Test	Value	Units
BEES (<i>Apis mellifera</i>)	48H LD50	>2100 (contact)	µg/bee
EARTHWORMS (<i>Eisenia foetida foetida</i>)	14d LC50	>1000	mg/kg dry soil
DUCKWEED (<i>Lemna minor</i>)	7d EC50	0.055	mg/l
GREEN ALGAE (<i>Pseudokirchneriella subcapitata</i>)	72H ErC50	5.6	mg/l
DAPHNIDS (<i>Daphnia magna</i>)	48H LC50	>2100	mg/l
RAINBOW TROUT (<i>Oncorhynchus mykiss</i>)	96H LC50	>2100	mg/l

12.2. Persistence and degradability

Persistence and degradability: Florasulam is not readily biodegradable. It is not persistent in aerobic soil or aquatic systems but is degraded to its major degradate N-(2,6-difluorophenyl)-8-fluoro-5-hydroxy-[1,2,4]triazolo[1,5-c]pyrimidine-2-sulfonamide. This is more slowly biodegraded in soil or even stable in some aquatic systems, and more mobile than Florasulam. Degradation half lives of Florasulam vary with circumstances, 2 to 18 days in aerobic soil. Degradation is mainly microbiological.

12.3. Bioaccumulative potential

Bioaccumulative potential: Florasulam: log Kow at 20°C: -1.22 at pH 7; 1.0 at pH 4; -2.06 at pH 10. Florasulam does not bioaccumulate. Bioconcentration factor (BCF) is <2.21.

12.4. Mobility in soil

Mobility: Under normal conditions, Florasulam is mobile in soil. It has a potential for leaching to groundwater.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Toxic to aquatic organisms.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Waste that cannot be reused or chemically reprocessed can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Disposal of packaging: Triple rinse (or equivalent) and offer for recycling or reconditioning. Do not discharge

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cleaning water to sewer systems. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN3082

14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(FLORASULAM (ISO))

14.3. Transport hazard class(es)

Transport class: 9

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: Yes

14.6. Special precautions for user

Special precautions: Do not discharge to the environment.

Tunnel code: E

Transport category: 3

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk: The product is not transported in bulk tankers.

Section 15: Regulatory information

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

Specific regulations: Seveso category in Annex 1 to Dir. 2012/18/EU: dangerous for the environment. All ingredients in this product are covered by EU chemical legislation. Product Registration Number: MAPP 16565.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

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Phrases used in s.2 and s.3: EUH208: Contains <name of sensitising substance>. May produce an allergic reaction.
EUH401: To avoid risks to human health and the environment, comply with the instructions for use.
H410: Very 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.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.