

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

1.1. Product identifier

Product name: VENDETTA

Product code: 5876

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

Use of substance / mixture: Can be used as fungicide 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 CLP: Skin Sens. 1A: H317; Repr. 2: H361d; Aquatic Chronic 1: H410; -: EUH401

Most important adverse effects: May cause an allergic skin reaction. Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects. To avoid risks to human health and the environment, comply with the instructions for use.

2.2. Label elements

Label elements:

Hazard statements: H317: May cause an allergic skin reaction.

H361d: Suspected of damaging the unborn child.

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 use.

Signal words: Warning

Hazard pictograms: GHS07: Exclamation mark

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GHS08: Health hazard

GHS09: Environmental



Precautionary statements: P261: Avoid breathing vapours.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing.
P302+352: IF ON SKIN: Wash with plenty of water/soap and water.
P362+364: Take off contaminated clothing and wash it before reuse.
P501: Dispose of contents/container to hazardous or special waste collection point.

2.3. Other hazards

Other hazards: Danger of serious damage to health by prolonged exposure.

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

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

FLUAZINAM

EINECS	CAS	PBT / WEL	CLP Classification	Percent
-	79622-59-6	-	Skin Irrit. 2: H315; Skin Sens. 1A: H317; Eye Dam. 1: H318; Acute Tox. 4: H332; Repr. 2: H361d; Aquatic Acute 1: H400; Aquatic Chronic 1: H410	10-30%

AZOXYSTROBIN

-	131860-33-8	-	Acute Tox. 3: H331; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	10-30%
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SODIUM ALKYLNAPHTHALENE SULPHONATE-FORMALDEHYDE CONDENSATE

-	577773-56-9	-	Eye Irrit. 2: H319	1-10%
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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. Get medical attention promptly if symptoms persist after washing.

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.

Ingestion: Wash out mouth with water. Do not induce vomiting. Drink several glasses of water or

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milk. If vomiting occurs, rinse mouth and drink fluids again. Get medical attention immediately.

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 irritation and redness at the site of contact. May produce an allergic reaction.

Eye contact: There may be irritation and redness.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: Exposure may cause coughing or wheezing.

Delayed / immediate effects: No data available.

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

Immediate / special treatment: Immediate medical attention is required in case of ingestion. Show this safety data sheet to the doctor in attendance. There is no specific antidote for exposure to this material. Treatment of exposure is as for a general chemical. Gastric lavage and/or administration of activated charcoal can be considered.

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. Essential breakdown products are volatile, malodorous, toxic, irritant and inflammable compounds such as hydrogen fluoride, hydrogen chloride, nitrogen oxides, sulphur dioxide, carbon oxides and various fluorinated and chlorinated 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. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water run off. 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: Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Mark out the contaminated area with signs and prevent access to unauthorised

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personnel. Turn leaking containers leak-side up to prevent the escape of liquid. Avoid and reduce mist formation as much as possible. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. In the case of large spills (1 ton or more), alert the appropriate authorities.

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. Used containers should be properly closed and labelled. 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: Pregnant women should not work with this product. 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. For its use as a pesticide, look for precautions and personal protective measures on the officially approved label or other official guidance or policy in force. If these are lacking, see section 8 of this SDS. Keep unauthorised personnel away from working area. Remove contaminated clothing immediately. Wash gloves with soap and water before removing. Shower with soap and water after handling. 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: Recommended storage temperature: 5°C to 30°C. Keep away from direct sunlight. Protect from exposure to fire and heat. 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

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persons or children. Food, drink, feed and seed should not be present. A warning sign reading 'POISON' is recommended. 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.

DNEL/PNEC Values

Hazardous ingredients:

FLUAZINAM

Type	Exposure	Value	Population	Effect
DNEL	-	0.004 mg/kg.bw/day	-	Systemic
PNEC	Aquatic environment	0.53 µg/l	-	-

AZOXYSTROBIN

Type	Exposure	Value	Population	Effect
DNEL	-	0.2 mg/kg.bw/day	-	Systemic
PNEC	Aquatic environment	0.88 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: In the event of a discharge of the material which produces a heavy vapour or mist, workers must put on officially approved respiratory protection equipment with a 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: Face-shield. 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.

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Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Yellow-brown

Odour: Mixed chemicals

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Miscible

Viscosity: Non-newtonian fluid; viscosity is dependent on shear rate.

Flash point°C: 94

Relative density: 1.246 at 20°C

pH: 6.06

9.2. Other information

Other information: Not applicable.

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: 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

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DERMAL	RAT	LD50	>4000	mg/kg
INHALATION	RAT	4H LC50	>4.86	mg/l

Hazardous ingredients:

FLUAZINAM

DERMAL	RAT	LD50	>2000	mg/kg
INHALATION	RAT	4H LC50	1.68	mg/l
ORAL	RAT	LD50	>4100	mg/kg

AZOXYSTROBIN

DERMAL	RAT	LD50	>2000	mg/kg
INHALATION	RAT(f)	4H LC50	0.698	mg/l
INHALATION	RAT(m)	4H LC50	0.963	mg/l
ORAL	RAT	LD50	>5000	mg/kg

SODIUM ALKYLNAPHTHALENE SULPHONATE-FORMALDEHYDE CONDENSATE

ORAL	RAT	LD50	>5000	mg/kg
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Relevant hazards for substance:

Hazard	Route	Basis
Reproductive toxicity	--	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact. May produce an allergic reaction.

Eye contact: There may be irritation and redness.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: Exposure may cause coughing or wheezing.

Delayed / immediate effects: No data available.

Other information: The symptoms of the allergic effect range from mildly itchy, papular rash to painful, weeping and blistering dermatitis. In animal tests, the main symptoms after oral intake were disturbance of respiration and decreased activity.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values:

Species	Test	Value	Units
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BLUEGILL (<i>Lepomis macrochirus</i>)	96H LC50	0.091	mg/l
DAPHNID (<i>Daphnia magna</i>)	48H EC50	0.46	mg/l
DAPHNID (<i>Daphnia magna</i>)	48H NOEC	0.21	mg/l
ALGAE (<i>Navicula pelliculosa</i>)	72H ErC50	0.132	mg/l
ALGAE (<i>Navicula pelliculosa</i>)	72H NOEC	0.0256	mg/l
DUCKWEED (<i>Lemna gibba</i>)	7d ErC50	6.62	mg/l
DUCKWEED (<i>Lemna gibba</i>)	7d NOEC	0.15	mg/l
EARTHWORM (<i>Eisenia fetida</i>)	14d LC50	>1000	mg/kg
HONEYBEE (<i>Apis mellifera</i>)	LD50 contact	>200	µg/bee
HONEYBEE (<i>Apis mellifera</i>)	LD50 oral	>219	µg/bee

12.2. Persistence and degradability

Persistence and degradability: Fluazinam is biodegradable, but it does not meet the criteria for being readily biodegradable. It undergoes degradation in the environment and in waste water treatment plants. Primary degradation half-lives in the environment vary with circumstances, but are usually a few months. Azoxystrobin does not meet the criteria for being readily biodegradable, but it is degraded in the environment. Degradation occurs both by photolysis and by microbiological degradation. Primary degradation half-lives vary with circumstances, but are usually a few weeks in aerobic soil and water. Sodium alkylnaphthalene sulphonate-formaldehyde condensate is not readily biodegradable and may not be degradable in waste water treatment plants.

12.3. Bioaccumulative potential

Bioaccumulative potential: Fluazinam: Log Kow = 3.56 at 25°C; BCF = 500 - 800 for whole fish (Bluegill sunfish, *Lepomis macrochirus*). Fluazinam has a potential to bioaccumulate but is metabolised relatively rapidly. Azoxystrobin: Log Kow = 2.5 at 20°C. Bioaccumulation of azoxystrobin is not expected. Sodium alkylnaphthalene sulphonate-formaldehyde condensate is soluble in water and is not expected to bioaccumulate.

12.4. Mobility in soil

Mobility: Fluazinam has low mobility in soil. Under normal conditions azoxystrobin has low to moderate mobility in soil.

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: No data available.

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

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to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate ponds, waterways or ditches with chemical or used containers. Do not discharge to sewer systems.

Waste code number: 02 01 08

Disposal of packaging: Triple rinse (or equivalent) and offer for recycling or reconditioning. Do not discharge cleaning water to sewer systems. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials. Alternatively, packaging can be delivered to a licensed service for disposal of hazardous waste.

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.
(FLUAZINAM; AZOXYSTROBIN)

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: Category E1 in Annex I to Dir. 2012/18/EU: hazardous to the aquatic environment. The employer shall assess any risks to the safety or health and any possible effect on the pregnancies or breastfeeding of workers and decide what measures should be taken (Dir. 92/85/EEC). Workers under the age of 18 are not permitted to work with the product. All ingredients in this product are covered by EU chemical legislation. Product Registration Number: MAPP 17500.

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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.

Phrases used in s.2 and s.3: EUH401: To avoid risks to human health and the environment, comply with the instructions for use.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H331: Toxic if inhaled.

H332: Harmful if inhaled.

H361d: Suspected of damaging the unborn child.

H400: Very toxic to aquatic life.

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

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.