

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

1.1. Product identifier

CA Code (Nufarm)	: 2702
Oracle Recipe Code (Nufarm)	: 600000594
Item codes	: 110004476;110004728;110004729
Product form	: Mixture
Trade name	: PLAZMA
Type (Nufarm)	: Country Specific
Country (Nufarm)	: United Kingdom

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

1.2.1. Relevant identified uses

Main use category	: Professional use
Industrial/Professional use spec	: Fungicide
Use of the substance/mixture	:

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Nufarm UK Limited
Wyke Lane
Wyke
BD12 9EJ Bradford - UK
T +44 (0)1274 691234 - F +44 (0) 1274691176
infouk@uk.nufarm.com

1.4. Emergency telephone number

Emergency number : +44 (0)1274 696603

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazardous to the aquatic environment — H400
Acute Hazard, Category 1
Hazardous to the aquatic environment — H410
Chronic Hazard, Category 1

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

Very toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS09

Signal word (CLP)	: Warning
Hazardous ingredients	: Azoxystrobin 250 g/L
Hazard statements (CLP)	: H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P273 - Avoid release to the environment. P391 - Collect spillage. P501 - Dispose of contents and container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
EUH-statements	: EUH208 - Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

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

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
AZOXYSTROBIN	(CAS-No.) 131860-33-8 (EC Index-No.) 607-256-00-X	23.45	Acute Tox. 3 (Inhalation), H331 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
1,2-Propanediol	(CAS-No.) 57-55-6 (EC-No.) 200-338-0 (REACH-no) 01-2119456809-23	10 - 15	Not classified
ALCOHOLS, C16-18, ETHOXYLATED	(CAS-No.) 68439-49-6	5 - 10	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
Alkyl-naphthalenesulfonic acid, polymer with formaldehyde, sodium salt	(CAS-No.) 68425-94-5 (EC-No.) 614-476-8	1 - 5	Eye Irrit. 2, H319
1,2-benzisothiazol-3(2H)-one	(CAS-No.) 2634-33-5 (EC-No.) 220-120-9 (EC Index-No.) 613-088-00-6	< 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell. Rinse mouth out with water. Do not induce vomiting.

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

Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact	: May cause moderate irritation.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: May cause irritation to the digestive tract. Ingestion may cause nausea and vomiting. Abdominal pain, nausea.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Nitrogen oxides. Hydrogen cyanide.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.
Information on mixed storage : Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.
Special rules on packaging : Keep only in original container. Store in a closed container.

7.3. Specific end use(s)

Fungicide.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1,2-Propanediol (57-55-6)		
EU	Notes	TWA = 10 mg/m ³ (US WEEL)
United Kingdom	Local name	Propane-1,2-diol
United Kingdom	WEL TWA (mg/m ³)	474 mg/m ³ (total particulates and vapour) 10 mg/m ³ (particulates)
United Kingdom	WEL TWA (ppm)	150 ppm (total particulates and vapour)
United Kingdom	WEL STEL (mg/m ³)	1422 mg/m ³ (calculated-total particulate and vapour) 30 mg/m ³ (calculated-particulate)
United Kingdom	WEL STEL (OEL STEL) [ppm]	450 ppm (calculated-total particulate and vapour)
United Kingdom	Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Gloves. Protective clothing. Safety glasses.

Hand protection:

Nitrile rubber gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

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In case of insufficient ventilation, wear suitable respiratory equipment



Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Off-white.
Odour	: characteristic.
Odour threshold	: No data available
pH	: 8.1
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 100 °C
Auto-ignition temperature	: > 600 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.1355
Solubility	: Water: Emulsifiable in water Organic solvent:soluble in most organic solvents
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 421.8 mPa·s 20°C
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing material according to EC criteria.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

PLAZMA	
LD50 oral rat	2500 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 2.4 mg/l/4h Maximum concentration; EPA FIFRA 81-3

AZOXYSTROBIN (131860-33-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	0.706 mg/l/4h

1,2-benzisothiazol-3(2H)-one (2634-33-5)	
LD50 oral rat	1020 mg/kg
LD50 oral	1150 mg/kg mouse

1,2-Propanediol (57-55-6)	
LD50 oral rat	20 g/kg
LD50 dermal rabbit	20800 mg/kg
LC50 Inhalation - Rat	317 µL/m ³ rabbit; 2h

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 8.1
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 8.1
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)

AZOXYSTROBIN (131860-33-8)	
NOAEL (animal/male, F0/P)	170 mg/kg rat

STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Very toxic to aquatic life with long lasting effects.

PLAZMA	
LC50 96h fish	1.39 mg/l Oncorhynchus mykiss (Rainbow trout)
EC50 48h crustacea	2.19 g/l
EC50 72h algae	0.681 mg/l Pseudokirchneriella subcapitata
NOEC (chronic)	0.171 mg/l
NOEC chronic fish	0.939 mg/l Oncorhynchus mykiss (Rainbow trout)
NOEC chronic algae	0.286 mg/l Pseudokirchneriella subcapitata
LD50, Eisenia fetida (Earthworm)	> 2000 mg/kg
LD50, Oral, Apis mellifera (bee)	> 200 µg/bee (Data apply to the technically active substance)
LD50, Dermal, Apis mellifera (bee)	> 100 µg/bee (Data apply to the technically active substance)

1,2-Propanediol (57-55-6)	
LC50 96h fish	40613 mg/l Oncorhynchus mykiss (Rainbow trout)

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1,2-Propanediol (57-55-6)	
EC50 96h algae	19000 mg/l Pseudokirchneriella subcapitata
NOEC (chronic)	13020 mg/l Ceriodaphnia dubia; 7 d
NOEC, Bacille Pseudomonas putida	> 20000 mg/l (18 Hours, Test method: Toxicity to bacteria)

12.2. Persistence and degradability

PLAZMA	
Persistence and degradability	Not readily biodegradable.
1,2-Propanediol (57-55-6)	
Persistence and degradability	Readily biodegradable. Biodegradation can occur under anaerobic conditions (in the absence of oxygen).
Biodegradation	81 % 28 d; OECD 301

12.3. Bioaccumulative potential

PLAZMA	
Bioaccumulative potential	No bioaccumulation.
AZOXYSTROBIN (131860-33-8)	
Log Pow	2.5 25°C
1,2-Propanediol (57-55-6)	
BCF fish 1	< 1
Bioconcentration factor (BCF REACH)	0.09
Log Pow	-1.07
Bioaccumulative potential	No bioaccumulation.

12.4. Mobility in soil

PLAZMA	
Mobility in soil	Adsorbs into the soil
Surface tension	42.5 mN/m 25°C
1,2-Propanediol (57-55-6)	
Mobility in soil	Given its very low Henry's constant, volatilization from bodies of water or moist soil is not expected to be an important factor in the fate of the product. Very high potential for mobility in the soil (Koc between 0 and 50).
Log Koc	Koc < 1

12.5. Results of PBT and vPvB assessment

PLAZMA	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
Component	
1,2-Propanediol (57-55-6)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information



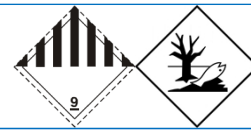
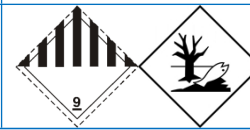
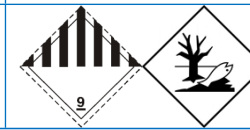
In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
3082	3082	3082	3082	3082
14.2. UN proper shipping name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN)	Environmentally hazardous substance, liquid, n.o.s. (AZOXYSTROBIN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AZOXYSTROBIN)
Transport document description (ADR)				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,	UN 3082 Environmentally hazardous substance, liquid, n.o.s.	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

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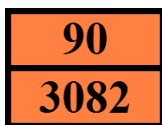
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

ADR	IMDG	IATA	ADN	RID
N.O.S. (AZOXYSTROBIN), 9, III, (-)	N.O.S. (AZOXYSTROBIN), 9, III, MARINE POLLUTANT	(AZOXYSTROBIN), 9, III	N.O.S. (AZOXYSTROBIN), 9, III	N.O.S. (AZOXYSTROBIN), 9, III
14.3. Transport hazard class(es)				
9	9	9	9	9
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : M6
 Special provisions (ADR) : 274, 335, 375, 601
 Limited quantities (ADR) : 5I
 Excepted quantities (ADR) : E1
 Packing instructions (ADR) : P001, IBC03, LP01, R001
 Special packing provisions (ADR) : PP1
 Mixed packing provisions (ADR) : MP19
 Portable tank and bulk container instructions (ADR) : T4
 Portable tank and bulk container special provisions (ADR) : TP1, TP29
 Tank code (ADR) : LGBV
 Vehicle for tank carriage : AT
 Transport category (ADR) : 3
 Special provisions for carriage - Packages (ADR) : V12
 Special provisions for carriage - Loading, unloading and handling (ADR) : CV13
 Hazard identification number (Kemler No.) : 90
 Orange plates :



Tunnel restriction code (ADR) : -
 EAC code : •3Z

- Transport by sea

Special provisions (IMDG) : 274, 335, 969
 Limited quantities (IMDG) : 5 L
 Excepted quantities (IMDG) : E1
 Packing instructions (IMDG) : P001, LP01
 Special packing provisions (IMDG) : PP1
 IBC packing instructions (IMDG) : IBC03
 Tank instructions (IMDG) : T4
 Tank special provisions (IMDG) : TP2, TP29
 EmS-No. (Fire) : F-A
 EmS-No. (Spillage) : S-F
 Stowage category (IMDG) : A

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- Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197
ERG code (IATA)	: 9L

- Inland waterway transport

Classification code (ADN)	: M6
Special provisions (ADN)	: 274, 335, 375, 601
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0

- Rail transport

Classification code (RID)	: M6
Special provisions (RID)	: 274, 335, 375, 601
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1, TP29
Tank codes for RID tanks (RID)	: LGBV
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW31
Colis express (express parcels) (RID)	: CE8
Hazard identification number (RID)	: 90

14.7. Transport in bulk according to Annex II of Marpol 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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H302	Harmful if swallowed.
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.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH208	Contains . May produce an allergic reaction.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

NUFARM SDS TEMPLATE

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.