



# SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

## Hurricane

Revision date 18-Oct-2021

Version 3 Supersedes Date: 02-Sep-2014

Product Code(s)

HRB00869-44

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ADM.02250.H.1.A 12732

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

### 1.1. Product identifier

## Hurricane

#### Other means of identification

Synonyms

Diflufenican 500 SC

Pure substance/mixture

Mixture

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

Recommended use

Herbicide

Uses advised against

No information available

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

ADAMA Agricultural Solutions UK Ltd  
Third Floor East  
1410 Arlington Business Park  
Theale  
READING  
RG7 4SA  
Tel: 01635 860555  
Fax: 01635 861555

### For further information, please contact

E-mail address

ukenquiries@adama.com

### 1.4. Emergency telephone number

Emergency Telephone

National Chemical Emergency Centre (UK):  
Tel: 01865 407333 (24 hours)  
National Poisons Information Centre (Republic of Ireland)  
Tel: 01 809 2166 (8am – 10pm 7 days a week)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

### 2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]  
Hazard pictograms



<b>Signal word</b>	Warning
<b>Hazard statements</b>	H410 - Very toxic to aquatic life with long lasting effects
<b>Precautionary Statements</b>	P102 - Keep out of reach of children P501 - Dispose of contents/ container to an approved waste disposal plant
<b>EU Specific Hazard Statements</b>	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
<b>Additional phrases for PPP</b>	SP1 - 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).

**2.3. Other hazards**

<b>PBT &amp; vPvB</b>	The product does not contain any substance(s) classified as PBT or vPvB.
<b>Endocrine Disruptor Information</b>	None known.
<b>Persistent Organic Pollutants</b>	Not applicable.

**SECTION 3: Composition/information on ingredients**

**3.1 Substances**

Not applicable

**3.2 Mixtures**

Chemical name	CAS No	EC No	Index No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	REACH Registration Number
Diflufenican	83164-33-4	617-446-2	616-032-00-9	40-44	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		M=10000 M=1000	No data available
1,2-Benzisothiazolin-3-one	2634-33-5	220-120-9	613-088-00-6	< 0.5	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Acute Tox. 4	Skin Sens. 1 :: C>=0.05%		01-212076154 0-60-XXXX

					(H302) Aquatic Acute 1 (H400)			
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Acute toxicity estimates (ATEs) according to Part 3 of Annex VI to Regulation (EC) No 1272/2008 are indicated in this table, if available.

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.

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

<b>Symptoms</b>	None known.
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### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Small Fire</b>	Dry chemical, CO <sub>2</sub> , water spray or regular foam
<b>Large Fire</b>	Do not scatter spilled material with high pressure water streams Dike fire-control water for later disposal Water spray, fog or regular foam Move containers from fire area if you can do it without risk
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.

### 5.2. Special hazards arising from the substance or mixture

<b>A fire or explosion</b>	Some may burn but none ignite readily Containers may explode when heated Some may be transported hot
<b>Specific hazards arising from the chemical</b>	No information available.

### 5.3. Advice for firefighters

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<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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## **SECTION 6: Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

<b>Personal precautions</b>	Ensure adequate ventilation.
<b>Health risks</b>	Contact may cause burns to skin and eyes Runoff from fire control may cause pollution Fire may produce irritating, corrosive and/or toxic gases Inhalation of material may be harmful Inhalation of Asbestos dust may have a damaging effect on the lungs Some liquids produce vapors that may cause dizziness or suffocation
<b>Spill or Leak</b>	Avoid inhalation of asbestos dust Do not touch or walk through spilled material Prevent dust cloud Stop leak if you can do it without risk
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

### **6.2. Environmental precautions**

<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
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### **6.3. Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Take up mechanically, placing in appropriate containers for disposal.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.

### **6.4. Reference to other sections**

<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.
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## **SECTION 7: Handling and storage**

### **7.1. Precautions for safe handling**

<b>Advice on safe handling</b>	Ensure adequate ventilation.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

### **7.2. Conditions for safe storage, including any incompatibilities**

<b>Storage Conditions</b>	Keep container tightly closed in a dry and well-ventilated place.
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### **7.3. Specific end use(s)**

<b>Identified uses</b>	
<b>Risk Management Methods (RMM)</b>	The information required is contained in this Safety Data Sheet.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure Limits**

<b>Derived No Effect Level (DNEL)</b>	No information available.
<b>Predicted No Effect Concentration (PNEC)</b>	No information available.

**8.2. Exposure controls****Engineering controls**

Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment  
Eye/face protection**

Tight sealing safety goggles.

**Hand protection**

Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time (permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

**Skin and body protection**

Use suitable protective clothing and equipment if required, such as safety goggles certified to EN 166, gloves certified to EN 374, protective boots certified to EN 13832, and/or a water repellent woven coverall with 65% polyester and 35 % cotton.

**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment.

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls**

Local authorities should be advised if significant spillages cannot be contained.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
<b>Appearance</b>			
Physical state	: Liquid		
Color	: white		
Odor	: Acid Slight		
<b>Odor threshold</b>	: No data available		
<b>pH</b>	: 6.5 - 9.5	CIPAC MT 75.3	
<b>Melting point / freezing point °C</b>	: ----		Not applicable
<b>Boiling point / boiling range °C</b>	: No data available		
<b>Flash point °C</b>	: > 100	EEC A.9	
<b>Evaporation rate</b>	: No data available		
<b>Flammability (solid, gas)</b>	: Not applicable		
<b>Upper/lower flammability or explosive limits</b>	: No data available		
<b>Vapor pressure kPa</b>	: ----		Not applicable
<b>Vapor density</b>	: No data available		
<b>Relative density</b>	: 1.14 - 1.24	EEC A.3	
<b>Solubility(ies) mg/l</b>	: ----		Not applicable
<b>Partition coefficient Log Pow</b>	:		See Section 12 for additional Ecological Information
<b>Autoignition temperature °C</b>	: 550	EEC A.15	
<b>Decomposition temperature °C</b>	: No data available		
<b>Kinematic viscosity mm<sup>2</sup>/s 40 °C</b>	: 1706	OECD 114	

Surface tension	: 35.7	EEC A.5	1% 25°C
Particle Size	: Not applicable		

**9.2. Other information**

Bulk density g/ml : ----

**9.2.1. Information with regard to physical hazard classes**

Explosive properties : Not an explosive  
Oxidizing properties : Not oxidizing

**9.2.2. Other safety characteristics**

No information available

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

Reactivity No information available.

**10.2. Chemical stability**

Stability Stable under normal conditions.

**Explosion data**

Sensitivity to mechanical impact None.  
Sensitivity to static discharge None.

**10.3. Possibility of hazardous reactions**

Possibility of hazardous reactions None under normal processing.

**10.4. Conditions to avoid**

Conditions to avoid None known based on information supplied.

**10.5. Incompatible materials**

Incompatible materials None known based on information supplied.

**10.6. Hazardous decomposition products**

Hazardous decomposition products None known based on information supplied.

**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Oral LD50 mg/kg	: > 2000	Rat	OECD 401	Maximum attainable concentration
Dermal LD50 mg/kg	: > 2000	Rat	OECD 402	
Inhalation LC50 mg/l	: > 1.43	Rat	OECD 403	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Not irritating to eyes	Rabbit	OECD 405	
Sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

**Chronic toxicity****Germ cell mutagenicity**

**Chemical name**  
Diflufenican : Not classified

**Carcinogenicity**

**Chemical name**  
Diflufenican : Not Carcinogenic

**Reproductive toxicity**

**Chemical name**  
Diflufenican : Not toxic for the reproductive system

**STOT - Single Exposure**

**Chemical name**  
Diflufenican : Not classified

**STOT - Repeated Exposure**

**Chemical name**  
Diflufenican : Not classified

**Aspiration hazard**

**Chemical name**  
Diflufenican : Not classified

**11.2. Information on other hazards****11.2.1. Endocrine disrupting properties**

**Endocrine disrupting properties** No information available.

**11.2.2. Other information**

**Other adverse effects** No information available.

**SECTION 12: Ecological information****12.1. Toxicity**

<u>Acute toxicity</u>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish 96-hour LC50 mg/l	: > 100	Oncorhynchus mykiss	OECD 203	
Crustacea 48-hour EC50 mg/l	: > 100	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 0.00174	S. capricornutum	OECD 201	
Other plants EC50 mg/l	: ----			Not available

<u>Chronic aquatic toxicity</u>	<u>Values</u>	<u>Species</u>	<u>Method</u>	<u>Remarks</u>
Fish NOEC mg/l	: No data available			
Crustacea NOEC mg/l	: No data available			
Algae NOEC mg/l	: 0.000939	Selenastrum capricornutum	OECD 201	
Other plants NOEC mg/l	: No data available			

**Terrestrial Toxicity**

**Birds Oral LD50 mg/kg**  
**Chemical name**  
Diflufenican : > 2150 Bobwhite quail

**Bees Oral LD50 µg/bee**  
**Chemical name**

Diflufenican : > 100 Apis mellifera EPPO 170

**12.2. Persistence and degradability****Abiotic Degradation****Water DT50 days****Chemical name**

Diflufenican : 1-5 BBA IV: 5-1

**Soil DT50 days****Chemical name**

Diflufenican : 128 EPA / SETAC

**Biodegradation****Chemical name**

Diflufenican : No information available

**12.3. Bioaccumulative potential****Partition Coefficient (n-octanol/water) Log Pow****Chemical name**

<u>Chemical name</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Diflufenican	: 4.2	OECD 117	
Diflufenican	: 1276 - 1596	OECD 305	
Diflufenican	: 3417		KOC

**Bioconcentration factor (BCF)****Chemical name**
**12.4. Mobility in soil****Adsorption/Desorption****Chemical name**
**12.5. Results of PBT and vPvB assessment**

The components in this formulation do not meet the criteria for classification as PBT or vPvB

**12.6. Endocrine disrupting properties**

**Endocrine disrupting properties** No information available.

**12.7. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Waste from residues/unused products**

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging**

Improper disposal or reuse of this container may be dangerous and illegal.

**Other information**

Waste codes should be assigned by the user based on the application for which the product was used.

**SECTION 14: Transport information****ADR**

<b>14.1 UN number</b>	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflufenican)
<b>14.3 Transport hazard class(es)</b>	9
<b>14.4 Packing group</b>	III



<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflufenican), 9, III
<b>14.5 Environmental hazard</b>	Yes
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	274, 335, 601, 375
<b>Classification code</b>	M6
<b>RID</b>	
<b>14.1 UN number</b>	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflufenican)
<b>14.3 Transport hazard class(es)</b>	9
<b>14.4 Packing group</b>	III
<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflufenican), 9, III
<b>Environmental hazard</b>	Yes
<b>Special Precautions for Users</b>	
<b>14.5 Environmental hazard</b>	Yes
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	274, 335, 375, 601
<b>Classification code</b>	M6
<b>IMDG</b>	
<b>14.1 UN number</b>	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflufenican)
<b>14.3 Transport hazard class(es)</b>	9
<b>14.4 Packing group</b>	III
<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflufenican), 9, III, Marine pollutant
<b>14.5 Environmental hazard</b>	Yes
<b>14.6 Special Precautions for Users</b>	
<b>14.5 Marine pollutant</b>	P
<b>Environmental hazard</b>	Yes
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	274, 335, 969
<b>EmS-No</b>	F-A, S-F
<b>IMDG Stowage and segregation</b>	Category A No information available
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	No information available
<b>IATA</b>	
<b>14.1 UN number</b>	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflufenican)
<b>14.3 Transport hazard class(es)</b>	9
<b>14.4 Packing group</b>	III
<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diflufenican), 9, III
<b>14.5 Environmental hazard</b>	Yes
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	A97, A158, A197
<b>ERG Code</b>	9L



## SECTION 15: Regulatory information

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

Trade name / designation	Registration Number(s)	Date
Not Applicable	Not Applicable	Not Applicable

Comply with trade association/occupational health regulations.

Comply with regulation (EC) No 1107/2009 concerning the placing of plant protection products on the market.

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**Authorizations and/or restrictions on use:**

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not applicable

**15.2. Chemical safety assessment****Chemical Safety Report**

A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

SVHC: Substances of Very High Concern for Authorization:

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Revision date** 18-Oct-2021

**Reason for revision** Changes made to the last version are labeled with this sign \*\*\*

**List of Acronyms**

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road  
 ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 CAS Number - Chemical Abstracts Service number  
 EC Number - EINECS and ELINCS Number  
 EINECS - European Inventory of Existing Commercial Substances  
 ELINCS - European List of notified Chemical Substances  
 IATA - International Air Transport Association  
 ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air  
 IMDG - International Maritime Dangerous Goods  
 LC50 - Lethal Concentration to 50 % of a test population

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LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)  
OECD - Organization for Economic Co-operation and Development  
PBT - Persistent, Bioaccumulative and Toxic substance  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
STOT - Specific Target Organ Toxicity  
vPvB - Very Persistent and Very Bioaccumulative

**Classification according to Regulation (EC) No. 1272/2008 [CLP]****Classification of the mixture**

H400 - Very toxic to aquatic life  
H410 - Very toxic to aquatic life with long lasting effects

**Classification procedure**

Classification based on test data  
Classification based on test data

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**