



SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH), as amended by UK REACH Regulations SI 2019/758

Shogun

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Product Code(s)

HRB00865-44

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

1.1. Product identifier

Shogun

Other means of identification

Synonyms

Propaquizafop 100 EC

Pure substance/mixture

Mixture

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

Recommended use

Herbicide; Professional use

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

Republic of Ireland: National Poisons Information Centre, Beaumont Hospital:

Tel: 01 809 2166 or 01 837 9964 (8am - 10pm 7 days a week) or

the UK National Chemical Emergency Centre on

Tel: +44 (0)1865 407333 (24 hours, 7 days a week)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Aspiration hazard	Category 1 - (H304)
Serious eye damage/eye irritation	Category 2 - (H319)

Chronic aquatic toxicity	Category 2 - (H411)
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2.2. Label elements

Labelling according to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Contains Hydrocarbons, C10-C13, aromatics, <1% naphthalene

Hazard pictograms



Signal word

Danger

Hazard statements

H304 - May be fatal if swallowed and enters airways
H319 - Causes serious eye irritation
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
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
P331 - Do NOT induce vomiting
P501 - Dispose of contents/ container to an approved waste disposal plant

EU Specific Hazard Statements

EUH066 - Repeated exposure may cause skin dryness or cracking
EUH208 - Contains (propaquizafop). May produce an allergic reaction
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

Additional phrases for PPP

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

PBT & vPvB

The product does not contain any substance(s) classified as PBT or vPvB.

Endocrine Disruptor Information

None known.

Persistent Organic Pollutants

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 GB-CLP Regulations	Specific concentration limit (SCL)	M-Factor	REACH Registration Number

					UK SI 2019/720 and UK SI 2020/1567			
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	-	922-153-0		40-45	Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) (EUH066)			01-211945109 7-39-0001
Alcohols, C11-14-iso-, C13-rich, ethoxylated (7-15 EO)	78330-21-9	-		34-38	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)			No data available
Propaquiizafof	111479-05-1	-		7-12	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)		M=1 M=1	No data available
Propylene carbonate	108-32-7	203-572-1	607-194-00-1	7-12	Eye Irrit. 2 (H319)			01-211953723 2-48-0001

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

General advice	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). First aider: Pay attention to self-protection.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a doctor.
Eye contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Get medical attention immediately if symptoms occur.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a doctor if necessary.
Ingestion	Rinse mouth. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.
Self-protection of the first aider	Use personal protective equipment as required.

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

Symptoms	None known.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

5.3. Advice for firefighters

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Ensure adequate ventilation. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Other information Refer to protective measures listed in Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children. Store away from other materials.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

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

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) 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

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

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**

Property	Values	Method	Remarks
Appearance			
Physical state	: Liquid		
Colour	: amber		
Odour	: Aromatic		
Odour threshold	:		No data available
pH	: 4 - 7	CIPAC MT 75.3	1 %
Melting point / freezing point °C	: No data available		
Boiling point / boiling range °C	: No data available	EEC A.9	

Flash point °C	:	117.1		
Evaporation rate	:	No data available		
Flammability (solid, gas)	:	Not applicable		
Upper/lower flammability or explosive limits	:	No data available		
Vapour pressure kPa	:	No data available		
Vapour density	:	No data available		
Relative density	:	0.99 - 1.09	CIPAC MT 3.1	20 °C
Solubility(ies) mg/l	:	No data available		
Partition coefficient Log Pow	:			See Section 12 for additional Ecological Information
Autoignition temperature °C	:	410	EEC A.15	
Decomposition temperature °C	:	No data available		
Kinematic viscosity mm ² /s 40 °C	:	16.3	OECD 114	
Surface tension	:	29.5	EEC A.5	20°C
Particle Size	:	Not applicable		

9.2. Other information

Bulk density g/ml : Not applicable

9.2.1. Information with regards to physical hazard classes

Explosive properties : Not an explosive

Oxidising 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 423	
Dermal LD50 mg/kg	: > 2000	Rat	OECD 402	
Inhalation LC50 mg/l	: > 5.15	Rat	OECD 403	
Skin corrosion/irritation	: Non-irritating to the skin	Rabbit	OECD 404	
Serious eye damage/eye irritation	: Irritating to eyes	Rabbit	OECD 405	
Sensitisation	: Not a skin sensitiser	Guinea pig	OECD 406	

Chronic toxicity**Germ cell mutagenicity**

Chemical name
Propaquizafop : Not classified

Carcinogenicity

Chemical name
Propaquizafop : Not Carcinogenic

Reproductive toxicity

Chemical name
Propaquizafop : Not toxic for the reproductive system

STOT - Single Exposure

Chemical name
Propaquizafop : No data available

STOT - Repeated Exposure

Chemical name
Propaquizafop : No data available

Aspiration hazard

Chemical name
Hydrocarbons, C10-C13, aromatics, <1% naphthalene : H304 - May be fatal if swallowed and enters airways
Propaquizafop : No data available

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	: 6.53	Rainbow trout	OECD 203	
Crustacea 48-hour EC50 mg/l	: 12.9	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 6.28	D. Subspicatus	OECD 201	
Other plants EC50 mg/l	: ----			No data 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	: 1.25	green Algae	OECD 202	
Other plants NOEC mg/l	: No data available			

Terrestrial Toxicity**Birds Oral LD50 mg/kg**

Chemical name

Propaquizafop : > 2000 Bobwhite quail EPA 71-1

Bees Oral LD50 µg/bee

Chemical name

Propaquizafop : >20 Apis mellifera Acute oral toxicity Not toxic to bees

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

Chemical name

Propaquizafop : 32 EPA-FIFRA 161-2/3 pH 7, 25 ° C

Soil DT50 days

Chemical name

Propaquizafop : < 3 days 20° C

Biodegradation

Chemical name

Propaquizafop : Not readily biodegradable OECD 301 B

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

Chemical name

Propaquizafop : 4.78 OECD 117

Bioconcentration factor (BCF)

Chemical name

Propaquizafop : 583 (Whole fish) Low potential for bioaccumulation in aquatic organisms

12.4. Mobility in soil**Adsorption/Desorption**

Chemical name

Propaquizafop : 1028.60 OECD 106 KOC

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 waste in accordance with environmental legislation. Dispose of in accordance with local regulations.
Contaminated packaging	Improper disposal or reuse of this container may be dangerous and illegal.
Waste codes / waste designations according to EWC / AVV	
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

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Propaquizafop)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Propaquizafop), 9, III, (-)
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 601, 375
Classification code	M6
Tunnel restriction code	(-)

RID

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Propaquizafop)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Propaquizafop), 9, III
Environmental hazard	Yes
Special Precautions for Users	
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 375, 601
Classification code	M6

IMDG

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Propaquizafop)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Propaquizafop), 9, III, Marine pollutant
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
14.5 Marine pollutant	P
Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	274, 335, 969
EmS-No	F-A, S-F
IMDG Stowage and segregation	Category A No information available
14.7 Maritime transport in bulk according to IMO instruments	No information available

IATA

14.1 UN number	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Propaquizafop)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Hydrocarbons, C10-C13, aromatics, <1% naphthalene, Propaquizafop), 9, III
14.5 Environmental hazard	Yes
14.6 Special Precautions for Users	
Special Provisions	A97, A158, A197
ERG Code	9L



* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids

SECTION 15: Regulatory information

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

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

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

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (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
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SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

EUH066 - Repeated exposure may cause skin dryness or cracking
 H302 - Harmful if swallowed
 H304 - May be fatal if swallowed and enters airways
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H319 - Causes serious eye irritation
 H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects
 H411 - Toxic to aquatic life with long lasting effects
 H412 - Harmful to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:

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 06-Aug-2024

Reason for revision Section 9

Abbreviations and 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
 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 GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567**Classification of the mixture**

H304 - May be fatal if swallowed and enters airways
 H319 - Causes serious eye irritation
 H411 - Toxic to aquatic life with long lasting effects

Classification procedure

Classification based on test data
 Classification based on test data
 Classification based on Calculation method

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