



SAFETY DATA SHEET

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

Shogun

Revision date 28-Apr-2022

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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

National Chemical Emergency Centre (UK):
Tel: 01865 407333 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Aspiration hazard	Category 1 - (H304)
Serious eye damage/eye irritation	Category 2 - (H319)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements

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

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 Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	REACH Registration Number
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	-	922-153-0		40-45	Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)			01-211945109 7-39-0001

					(EUH066)			
Alcohols, C11-14-iso-, C13-rich, ethoxylated (7-15 EO)	78330-21-9	500-027-2		34-38	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)			No data available
Propaquizafop	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.
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Small Fire
Large Fire

Dry chemical, CO₂, water spray or regular foam
Do not scatter spilled material with high pressure water streams
Dyke fire-control water for later disposal
Water spray, fog or regular foam
Move containers from fire area if you can do it without risk

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

5.2. Special hazards arising from the substance or mixture

A fire or explosion Some may burn but none ignite readily
Containers may explode when heated
Some may be transported hot

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.

Health risk 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 vapours that may cause dizziness or suffocation

Spill or leak statements Avoid inhalation of asbestos dust
Do not touch or walk through spilled material
Prevent dust cloud

Other information Stop leak if you can do it without risk
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.

Incineration If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 metres (1/2 mile) in all directions; also, consider initial evacuation for 800 metres (1/2 mile) in all directions

Spill Increase, in the downwind direction, as necessary, the isolation distance shown under "Public safety"

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

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)

Identified uses

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**

If splashes are likely to occur, wear safety glasses with side-shields.

Hand protection

Wear suitable gloves.

Skin and body protection

Wear suitable protective clothing.

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

<u>Property</u>	<u>Values</u>	<u>Method</u>	<u>Remarks</u>
Appearance Physical state	: Liquid		

Colour	: amber		
Odour	: Aromatic		
Odour threshold	:		No data available
pH	: 3 - 7	CIPAC MT 75.3	1 %
Melting point / freezing point °C	: No data available		
Boiling point / boiling range °C	: No data available		
Flash point °C	: 117.1	EEC A.9	
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 mm²/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	Maximum attainable concentration
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
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
Chronic aquatic toxicity					
		<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 Maximum attainable concentration

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 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.
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

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



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 28-Apr-2022

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

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

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