



SAFETY DATA SHEET

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

Sword

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Version 2

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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Sword

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 Address ADAMA Agricultural Solutions UK Ltd
Unit 15, Thatcham Buisness Village Colthrop Way,
Thatcham Berkshire RG19 4LW, UK : 01635 860555
Fax: 01635 861555

For further information, please contact

Email address ukenquiries@adama.com

1.4. Emergency telephone number

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

Section 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

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

Aspiration hazard Category 1 - (H304)
Acute toxicity - Oral Category 4 - (H302)
Specific target organ toxicity
(repeated exposure) Category 2 - (H373)
Acute aquatic toxicity Category 1 - (H400)
Hazardous to the Aquatic
Environment - Chronic Hazard Category 1 - (H410)

Classification according to Directive 67/548/EEC or 1999/45/EC

Full text of R-phrases: see section 16

Xn;R22 - Xn;R48/22 - R66 - N;R50-53

2.2. Label elements

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

Hazard pictograms



Signal word

Danger

Hazard Statements

H302 - Harmful if swallowed
 H304 - May be fatal if swallowed and enters airways
 H373 - May cause damage to organs through prolonged or repeated exposure
 H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P102 - Keep out of reach of children
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P270 - Do not eat, drink or smoke when using this product
 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 Clodinafop-propargyl. 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

2.3. Other hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixture**

Chemical Name	Weight-%	CAS No	EC No	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Classification according to 67/548/EEC	M-Factor	REACH Registration Number
Clodinafop-propargyl	20-24	105512-06-9	-	607-625-00-3	Acute Tox. 4 (H302) Skin Sens. 1 (H317) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Xn; R22-48/22 R43 N; R50-53	1	-
Cloquintocet-mexyl	4-7	99607-70-2	-	-	Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Xi; R36 N; R50-53		-
calcium dodecylbenzenesulphonate	1-2	26264-06-2	247-557-8	-	Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	Xi; R38/R41		-

Poly(oxy-1,2-ethanediy l), .alpha.-[tris(1-phenylet hyl)phenyl]-.omega.-hydroxy-	6-9	99734-09-5	-	-	Aquatic Chronic 3 (H412)	R52/53		-
Propylene carbonate	7-11	108-32-7	203-572-1	607-194-00-1	Eye Irrit. 2 (H319)	Xi; R36		01-21195372 32-48-0001
Hydrocarbons, C10-C13, aromatics, <1% naphthalene	49-55	N/A	922-153-0	-	Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411) (EUH066)	Xn;R65, R66 N;R51/53		01-21194510 97-39-0001

Full text of R-phrases: see section 16

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 unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.
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. If symptoms persist, call a physician.
Ingestion	Do NOT induce vomiting. Rinse mouth. Drink plenty of water. Immediate medical attention is required.
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 physicians	Treat symptomatically.
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Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

No information available.

5.2. Special hazards arising from the substance or mixture

No specific hazard known.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus
In the event of fire and/or explosion do not breathe fumes

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment as required.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product.

General Hygiene Considerations

When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.

7.3. Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

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.
Body Protection	Suitable protective clothing.
General Hygiene Considerations	When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.

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		
Color	: amber brown		
Odor	: characteristic		
Odor threshold	: No data available		
pH	: 4 - 6	CIPAC MT 75.2	
Melting point/freezing point °C	: ----		Not Applicable
Boiling point/boiling range °C	: No data available		
Flash point °C	: 102.5	CIPAC MT 12	
Evaporation rate	: Not Applicable		
Flammability (solid, gas)	: Not Applicable		
Upper/lower flammability or explosive limits	: No data available		
Vapor pressure kPa	: ----		Not Applicable
Vapor density	: No data available		
Relative density	: 1.065 - 1.095	CIPAC MT 3.3	
Solubility(ies) mg/l	: ----		Not Applicable
Partition Coefficient (n-octanol/water) Log Pow	:		See Section 12 for more information
Autoignition temperature °C	: No data available		
Decomposition temperature °C	: No data available		
Kinematic viscosity mm²/s 40 °C	: 7.68		
Explosive properties	: Not an explosive		
Oxidizing properties	: No data available		

9.2. Other information

Bulk density g/ml	: ----	Not Applicable
Surface tension mN/m	: 28.4	

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

No information available

10.6. Hazardous decomposition products

None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION**11.1. Information on toxicological effects****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/4h	: > 5.05	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	
Respiratory/skin sensitization	: Not a skin sensitizer	Guinea pig	OECD 406	

Chronic toxicity**Germ cell mutagenicity****Chemical Name**

Clodinafop-propargyl : Not classified
 Cloquintocet-mexyl : No data available

Carcinogenicity**Chemical Name**

Clodinafop-propargyl : Not Carcinogenic
 Cloquintocet-mexyl : No data available

Reproductive toxicity**Chemical Name**

Clodinafop-propargyl : Not toxic for the reproductive system
 Cloquintocet-mexyl : No data available

STOT - single exposure**Chemical Name**

Clodinafop-propargyl : No data available
 Cloquintocet-mexyl : No data available

STOT - repeated exposure**Chemical Name**

Clodinafop-propargyl : H373 - May cause damage to organs through prolonged or repeated exposure
 Cloquintocet-mexyl : No data available

Aspiration hazard**Chemical Name**

Clodinafop-propargyl : No data available
 Cloquintocet-mexyl : No data available

Section 12: ECOLOGICAL INFORMATION**12.1. Toxicity**

Aquatic toxicity

Acute toxicity	Values	Species	Method	Remarks
Fish 96-hour LC50 mg/l	: 5.0	Oncorhynchus mykiss	92/69/EC C.1 L383A/179	
Crustacea 48-hour EC50 mg/l	: 12.9	Daphnia magna	OECD 202	
Algae 72-hour EC50 mg/l	: 1.8	P. subcapitata	OECD 201	
Other plants EC50 mg/l	: 0.87		OECD 221	days 14

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

Clodinafop-propargyl	: > 2000	Bobwhite quail	EPA-OPPTS 850.2100
Cloquintocet-mexyl	: > 2000	Mallard duck	

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

Clodinafop-propargyl	: > 104		OECD 213, OECD 214
Cloquintocet-mexyl	: > 100		

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

Chemical Name	Values	Method	Remarks
Clodinafop-propargyl	: 4.8		pH 7, 25 ° C
Cloquintocet-mexyl	: 133.7		pH 7, 25 ° C

Soil DT50 days**Chemical Name**

Clodinafop-propargyl	: < 0.1	BBA IV 4-1	20° C
Cloquintocet-mexyl	: 0.5 - 2.4		

Biodegradation**Chemical Name**

Clodinafop-propargyl	: No data available
Cloquintocet-mexyl	: No data available

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

Chemical Name	Values	Method	Remarks
Clodinafop-propargyl	: 3.9		25° C
Cloquintocet-mexyl	: 5.03		25 ° C

Bioconcentration factor (BCF)**Chemical Name**

Clodinafop-propargyl	:		Low
Cloquintocet-mexyl	: ----		No data available

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

Chemical Name	Values	Method	Remarks
Clodinafop-propargyl	: 252 - 2364		Koc
Cloquintocet-mexyl	: ----		No data available

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. Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
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: TRANSPORTATION INFORMATION

IMDG/IMO

14.1 UN/ID No	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clodinafop-propargyl, Cloquintocet-mexyl. Hydrocarbons, C10-13, aromatics)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Marine pollutant	Yes
14.6 Special precautions for user	

RID/ADR

14.1 UN/ID No	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clodinafop-propargyl, Cloquintocet-mexyl. Hydrocarbons, C10-13, aromatics)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	

ICAO/IATA

14.1 UN/ID No	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clodinafop-propargyl, Cloquintocet-mexyl. Hydrocarbons, C10-13, aromatics)
14.3 Hazard Class	9
14.4 Packing Group	III
14.5 Environmental hazard	Yes
14.6 Special precautions for user	
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not Applicable



Section 15: REGULATORY INFORMATION

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

15.2. Chemical safety assessment

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required. A risk assessment was performed according to directive (EC) No. 91/414 or according to regulation (EC) No. 1107/2009.

Section 16: OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R22 - Harmful if swallowed

R36 - Irritating to eyes

R43 - May cause sensitization by skin contact

R65 - Harmful: may cause lung damage if swallowed

R66 - Repeated exposure may cause skin dryness or cracking

R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed

H304 - May be fatal if swallowed and enters airways

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H373 - May cause damage to organs through prolonged or repeated exposure if inhaled

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

EUH066 - Repeated exposure may cause skin dryness or cracking

Revision Note

*** - Change from previous version.

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

Disclaimer

The information provided in this Material 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