



SAFETY DATA SHEET

CLINCHER® S GOLD

Version 1

Revision Date: 06.03.2019

Publish Date: 06.03.2019

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

1.1 Product identifier

Product name : CLINCHER® S GOLD

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

Use : Herbicide

1.3 Details of the supplier of the safety data sheet

Company : ADAMA South AFRICA (Pty) Ltd
Ground Floor, Simeka House,
The Vineyards Office Estate
99 Jip de Jager Drive
Bellville 7530

Telephone : +27 (0) 21 982 1460

E-mail address : sds@adama.com

1.4 Emergency telephone number

Emergency tele- : +27 (0) 82 446 8946

+27 (0) 861 555 777

phone number : +27 (0) 21 982 1460

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EU) 1272/2008

Skin sensitisation	Sub-category 1A	H317
Acute aquatic toxicity	Category 1	H400
Chronic aquatic toxicity	Category 1	H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

N, Dangerous for the environment

Xi, Irritant

R43: May cause sensitisation by skin contact.

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



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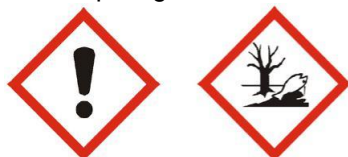
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2.2 Label elements

Labelling: Regulation (EC) No. 1272/2008

Hazard pictograms



Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : P102 Keep out of reach of children.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P391 Collect spillage.
P501 Dispose of contents/ container to an approved waste disposal plant.

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

Hazardous components which must be listed on the label:

- S-metolachlor
- benoxacor

Labelling: EU Directives 67/548/EEC or 1999/45/EC

Symbol(s)



Dangerous for the environment



Irritant

R-phrases(s) : R43 May cause sensitisation by skin contact.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



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S-phrase(s)	:	S 2	Keep out of the reach of children.
		S13	Keep away from food, drink and animal feedingstuffs.
		S20/21	When using do not eat, drink or smoke.
		S35	This material and its container must be disposed of in a safe way.
		S36/37	Wear suitable protective clothing and gloves.
		S57	Use appropriate container to avoid environmental contamination.

Additional Labelling : To avoid risks to man and the environment, comply with the instructions for use.

Hazardous components which must be listed on the label:

- S-metolachlor
- benoxacor

2.3 Other hazards

None known.



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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration
S-metolachlor	87392-12-9	Xi, N R43 R50/53	Skin Sens.1B; H317 Aquatic Acute1; H400 Aquatic Chronic1; H410	82.1 % W/W
benoxacor	98730-04-2 01-2119382304-42-0 000	Xi, N R43 R50	Skin Sens.1; H317 Aquatic Acute1; H400	4 % W/W
poly(oxy-1,2-eth anediyl), -[2,4,6-tris(1-phe nylethyl)phenyl]- -hydroxy-	99734-09-5 70559-25-0	R52/53	Aquatic Chronic3; H412	1 - 5 % W/W
calcium do- decylbenzene- sulphonate	26264-06-2 90194-26-6 247-557-8	Xi R38 R41	Skin Irrit.2; H315 Eye Dam.1; H318	1 - 5 % W/W
2-methylpropan- 1-ol	78-83-1 201-148-0 01-2119484609-23-0 012	Xi R10 R37/38 R41 R67	Flam. Liq.3; H226 STOT SE3; H335 Skin Irrit.2; H315 Eye Dam.1; H318 STOT SE3; H336	1 - 5 % W/W
solvent naphtha (petroleum), highly arom.	64742-94-5 265-198-5 922-153-0 01-2119451097-39-0 000	Xn, N R51/53 R65 R66	Asp. Tox.1; H304 Aquatic Chronic2; H411	1 - 5 % W/W

Substances for which there are Community workplace exposure limits.

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice : Have the product container, label or Material Safety Data Sheet with you when calling the Syngenta emergency number, a poison control center or physician, or going for treatment.

Inhalation : Move the victim to fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Keep patient warm and at rest.



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- Skin contact** : Take off all contaminated clothing immediately.
Wash off immediately with plenty of water.
If skin irritation persists, call a physician.
Wash contaminated clothing before re-use.
- Eye contact** : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Remove contact lenses.
Immediate medical attention is required.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label.
Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms** : Aspiration may cause pulmonary oedema and pneumonitis.

4.3 Indication of any immediate medical attention and special treatment needed

- Medical advice** : There is no specific antidote available.
Treat symptomatically.
Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Extinguishing media - small fires
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media - large fires
Alcohol-resistant foam
or
Water spray

Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.

5.3 Advice for firefighters

Wear full protective clothing and self-contained breathing apparatus.

Do not allow run-off from fire fighting to enter drains or water courses.
Cool closed containers exposed to fire with water spray.



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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so.
Do not flush into surface water or sanitary sewer system.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

If the product contaminates rivers and lakes or drains inform respective authorities.

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8.
Refer to disposal considerations listed in section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

No special protective measures against fire required.
Avoid contact with skin and eyes.
When using do not eat, drink or smoke.
For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

No special storage conditions required.
Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep out of the reach of children.
Keep away from food, drink and animal feedingstuffs.

7.3 Specific end use(s)

Registered Crop Protection products: For proper and safe use of this product, please refer to the approval conditions laid down on the product label.



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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components	Exposure limit(s)	Type of exposure limit	Source
S-metolachlor	10 mg/m ³	8 h TWA	SYNGENTA
benoxacor	1 mg/m ³	8 h TWA	SYNGENTA
2-methylpropan-1-ol	1,600 ppm 50 ppm 100 ppm 50 ppm 100 ppm 50 ppm, 231 mg/m ³	8 h TWA 15 min STEL 8 h TWA 8 h TWA 8 h TWA	NIOSH SUVA SUVA ACGIH DFG UK HSE
solvent naphtha (petroleum), highly arom.	8 ppm, 50 mg/m ³	8 h TWA	SUPPLIER

The following recommendations for exposure controls/personal protection are intended for the manufacture, formulation and packaging of the product.

8.2 Exposure controls

- Engineering measures** : Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated.
The extent of these protection measures depends on the actual risks in use.
If airborne mists or vapors are generated, use local exhaust ventilation controls.
Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.
Where necessary, seek additional occupational hygiene advice.
- Protective measures** : The use of technical measures should always have priority over the use of personal protective equipment.
When selecting personal protective equipment, seek appropriate professional advice.
Personal protective equipment should be certified to appropriate standards.
- Respiratory protection** : No personal respiratory protective equipment normally required.
A particulate filter respirator may be necessary until effective technical measures are installed.



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Hand protection	: Chemical resistant gloves should be used. Gloves should be certified to an appropriate standard. Gloves should have a minimum breakthrough time that is appropriate to the duration of exposure. The breakthrough time of gloves varies according to the thickness, material and manufacturer. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Suitable material Nitrile rubber
Eye protection	: Eye protection is not usually required. Follow any site specific eye protection policies.
Skin and body protection	: Assess the exposure and select chemical resistant clothing based on the potential for contact and the permeation / penetration characteristics of the clothing material. Wash with soap and water after removing protective clothing. Decontaminate clothing before re-use, or use disposable equipment (suits, aprons, sleeves, boots, etc.) Wear as appropriate: impervious protective suit

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	: liquid
Form	: liquid
Colour	: light brown to dark brown red
Odour	: characteristic
Odour Threshold	: no data available
pH	: 4 - 8 at 1 % w/v
Melting point/range	: no data available
Boiling point/boiling range	: no data available
Flash point	: > 70 °C
Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Lower explosion limit	: no data available
Upper explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Density	: 1.115 g/cm ³ at 20 °C
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition temperature	: no data available
Thermal decomposition	: no data available
Viscosity, dynamic	: no data available
Viscosity, kinematic	: no data available
Explosive properties	: no data available
Oxidizing properties	: no data available



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9.2 Other information

: no data available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information available.

10.2 Chemical stability

No information available.

10.3 Possibility of hazardous reactions

None known.

Hazardous polymerisation does not occur.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Combustion or thermal decomposition will evolve toxic and irritant vapors.



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SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- Acute oral toxicity** : LD50 male rat, 2,675 mg/kg
The toxicological data has been taken from products of similar composition.
- : LD50 female rat, 2,952 mg/kg
The toxicological data has been taken from products of similar composition.
- Acute inhalation toxicity** : LC50 male and female rat, > 3.06 mg/l , 4 h
The toxicological data has been taken from products of similar composition
- Acute dermal toxicity** : LD50 rabbit, > 2,020 mg/kg
The toxicological data has been taken from products of similar composition.
- Skin corrosion/irritation** : rabbit: Slightly irritating
The toxicological data has been taken from products of similar composition
- Serious eye damage/ eye irritation:** : rabbit: Mildly irritating
The toxicological data has been taken from products of similar composition
- Respiratory or skin sensitisation** : Maximization Test guinea pig: A skin sensitizer in animal tests.
The toxicological data has been taken from products of similar composition.
- Germ cell mutagenicity
S-metolachlor : Did not show mutagenic effects in animal experiments.
benoxacor : Did not show mutagenic effects in animal experiments.
2-methylpropan-1-ol : Did not show mutagenic effects in animal experiments.
- Carcinogenicity
S-metolachlor : Did not show carcinogenic effects in animal experiments.
benoxacor : Did not show carcinogenic effects in animal experiments.
2-methylpropan-1-ol : Did not show carcinogenic effects in animal experiments.
- Teratogenicity
S-metolachlor : Did not show teratogenic effects in animal experiments.
benoxacor : Did not show teratogenic effects in animal experiments.
- Reproductive toxicity
S-metolachlor : Did not show reproductive toxicity effects in animal experiments.
benoxacor : Did not show reproductive toxicity effects in animal experiments.
2-methylpropan-1-ol : Did not show reproductive toxicity effects in animal experiments.
- STOT - single exposure
2-methylpropan-1-ol : May cause drowsiness or dizziness.



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STOT - repeated exposure

- S-metolachlor : No adverse effect has been observed in chronic toxicity tests.
- benoxacor : No adverse effect has been observed in chronic toxicity tests.
- 2-methylpropan-1-ol : No adverse effect has been observed in chronic toxicity tests.

Aspiration toxicity

- solvent naphtha (petroleum), highly arom. : May be fatal if swallowed and enters airways.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish : LC50 *Oncorhynchus mykiss* (rainbow trout), 7.6 mg/l , 96 h
Based on test results obtained with similar product.

Toxicity to aquatic invertebrates : EC50 *Daphnia magna* Straus, 19.8 mg/l , 48 h
Based on test results obtained with similar product.

Toxicity to aquatic plants : EbC50 *Pseudokirchneriella subcapitata* (green algae), 0.025 mg/l , 72 h
Based on test results obtained with similar product.

: ErC50 *Pseudokirchneriella subcapitata* (green algae), 0.11 mg/l , 72 h
Based on test results obtained with similar product.

: NOEC *Pseudokirchneriella subcapitata* (green algae), 0.004 mg/l , 72 h
Based on test results obtained with similar product.

12.2 Persistence and degradability

Biodegradability

S-metolachlor : Not readily biodegradable.

Stability in water

S-metolachlor : Degradation half life: 53 - 147 d
Not persistent in water.

Stability in soil

S-metolachlor : Degradation half life: 12 - 46 d
Not persistent in soil.

12.3 Bioaccumulative potential

S-metolachlor : Does not bioaccumulate.
benoxacor : Does not bioaccumulate.

12.4 Mobility in soil

S-metolachlor : S-metolachlor has medium mobility in soil.



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benoxacor : Benoxacor has medium mobility in soil.

12.5 Results of PBT and vPvB assessment

S-metolachlor : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

benoxacor : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

solvent naphtha (petroleum), highly arom. : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
This substance is not considered to be very persistent nor very bioaccumulating (vPvB).



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12.6 Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

- Product** : Do not contaminate ponds, waterways or ditches with chemical or used container.
Do not dispose of waste into sewer.
Where possible recycling is preferred to disposal or incineration.
If recycling is not practicable, dispose of in compliance with local regulations
- Contaminated packaging** : Empty remaining contents.
Triple rinse containers.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not re-use empty containers.

SECTION 14: TRANSPORT INFORMATION

Land transport (ADR/RID)

- 14.1 UN number:** UN 3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (S-METOLACHLOR)
14.3 Transport hazard class(es): 9
14.4 Packing group: III
Labels: 9
14.5 Environmental hazards : Environmentally hazardous
Tunnel restriction code: E

Sea transport(IMDG)

- 14.1 UN number:** UN 3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (S-METOLACHLOR)
14.3 Transport hazard class(es): 9
14.4 Packing group: III
Labels: 9
14.5 Environmental hazards : Marine pollutant

Air transport (IATA-DGR)

- 14.1 UN number:** UN 3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (S-METOLACHLOR)
14.3 Transport hazard class(es): 9



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14.4 Packing group: III
Labels: 9

14.6 Special precautions for user

none

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

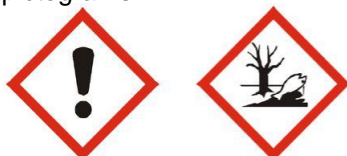
not applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mix-ture

GHS-Labeling

Hazard pictograms



Signal word : Warning

Hazard statements : H227 Combustible liquid
H303 May be harmful if swallowed.
H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : P102 Keep out of reach of children.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ protective clothing.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P391 Collect spillage.
P501 Dispose of contents/ container to an approved waste disposal plant.

Remarks : Classified using all GHS hazard classes and categories.
Where the GHS contains options, the most conservative option has been chosen.
Regional or national implementations of GHS may not implement all hazard classes and categories.



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Hazardous components which must be listed on the label:

- S-metolachlor
- benoxacor

15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: OTHER INFORMATION

Further information

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

R10	Flammable.
R37/38	Irritating to respiratory system and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
R50	Very toxic to aquatic organisms.
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.
R65	Harmful: may cause lung damage if swallowed.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

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

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
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.

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.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.