

Safety Data Sheet (SDS) S-MOC 960

According to UN GHS 8th Ed

Revision Date: 14/10/2022

Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: S-MOC 960

Product name: S-metolachlor 960 g/l EC

Relevant identification uses of the substance and uses advised against:

Identified uses: Herbicide

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Details of the Registration Holder:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street,
Lichtenburg, North West, South Africa, 2740

Contact Details:

Telephone: +27 87 231 7261

Fax: 086 541 7948

Website: www.envirobiochem.co.za

Emergency telephone numbers:

24 Hour Emergency Number: Bateleur: +27 83 123 3911

Griffon Poison Information Centre: +27 82 446 8946

Poisons Information Helpline: 0861 555 777

Tygerberg Hospital: +27 21 931 6129

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to Regulation (EC) No 1272/2008 EU-GHS/CLP

Hazard classes/Hazard categories	Hazard statement
Flammability, category 4	H227
Acute toxicity (Oral and Inhalation), Category 4	H303+H332
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 1	H410

Full text of H statements : see section 16

The most important adverse effects

The most important adverse physicochemical effects: None known

The most important adverse human health effects: Causes serious eye damage. May cause an allergic skin reaction

Label elements



Safety Data Sheet (SDS) S-MOC 960

Version: 1.1

According to UN GHS 8th Ed

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Hazard pictograms:
Signal Word: Danger

Hazard Statements:

H277	Combustible liquid.
H303+H332	Harmful if swallowed or inhaled.
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands and face thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release into the environment.
P280	Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.
P302/352	IF ON SKIN: Wash with plenty of water and non-abrasive soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTRE or doctor if you feel unwell.
P333/313	If skin irritation or rash occurs: Get medical advice.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	In case of fire: Use media other than water to extinguish.
P391	Collect spillage.
P401	Store locked up.
P501	Dispose of content/container to suitable landfill in accordance with local regulations.

Other hazards: None known

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS
Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification EC1272/2008
S-metolachlor	(CAS-No.) 87392-12-9 (EC-No.) 257-060-8	> 80	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:dust,mist), H332 Acute Tox. 4 (oral), H302 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

Safety Data Sheet (SDS) S-MOC 960

Version: 1.1

According to UN GHS 8th Ed

Revision Date: 14/10/2022

Light aromatic solvent	(CAS-No.) 64742-95-6 (EC-No.) 265-199-0	2.5 – 10	Acute Tox. 5 (Oral), H303 Acute Tox. 4 (Dermal), H312 Skin irrit. 3, H316 Eye irrit. 2B, H320 STOT 3, H335
Tristylphenol ethoxylate	(CAS-No.) 99734-09-5 (EC-No.) 935-429-0	2.5 - 5	Acute Tox. 5 (Oral), H303 Skin Irrit. 2, H315 Aquatic Chronic 2, H411
Phenyl sulphonate salt	(CAS-No.) 515-42-4 (EC-No.) 208-198-2	2.5 - 5	Skin Irrit. 2, H315 Eye irrit. 2, H319 STOT SE 3, H335 STOT SE 3, H336

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES
Description of first aid measures:

In case of inhalation: If inhaled, remove from contaminated area to fresh air and assist breathing as required. Seek medical attention if irritation occurs or if patient feels unwell after inhalation.

In case of skin contact: In case of contact, Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists.

In case of eye contact: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention immediately.

In case of ingestion: Wash out mouth with water if the patient is alert and conscious. Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to avoid aspiration. Keep patient at rest and transport to nearest medical facility for further treatment. attention. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt, or waistband.

Most important symptoms and effects, both acute and delayed:
Anticipated acute effects:

Inhalation: Harmful if inhaled.

Ingestions: May be harmful if swallowed.

Skin contact: May cause an allergic skin reaction.

Eye contact: Causes serious eye damage

Anticipated delayed effects: None known.

Most important symptoms/effects: None known.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically and supportively

SECTION 5. FIRE FIGHTING MEASURES
Extinguisher media:

Suitable extinguisher media: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Small Fire: Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam.

Large Fire: Water spray can be used for larger fires or cooling of unaffected stock but avoid the accumulation of

Safety Data Sheet (SDS) S-MOC 960

Version: 1.1

According to UN GHS 8th Ed

Revision Date: 14/10/2022

polluted run-off from the site. Use as little water as possible.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

No information available.

Advice for fire-fighters:

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment, and emergency procedures:

Personal precautions: Equip cleanup crew with proper protection

For emergency responders: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent. Avoid contact with eyes and skin. Do not breathe in fumes. Refer to section 8 for recommended personal protective equipment. Evacuate unnecessary personnel.

Emergency procedure: Ventilate area.

Environmental precautions:

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

Methods for containment and cleaning up:

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Reference to other sections:

See section 1 for emergency contact details

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

Conditions for safe storage, including incompatibilities:

Storage conditions: Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight.

Specific end uses:

Use as directed. Use original container.

Safety Data Sheet (SDS) S-MOC 960

Version: 1.1

According to UN GHS 8th Ed

Revision Date: 14/10/2022

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION
Control parameters:

Occupational exposure limits (OEL): No information available.

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Use outdoors in a well-ventilated area. Provide exhaust ventilation or other engineering controls. Ensure that control systems are properly designed. Comply with occupational safety, environmental, fire and other applicable regulations. Ensure that eyewashstations and safety showers are proximal to the work-station location.

Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Eye/face protection: Avoid contact with eyes. Wear a full-face shield when handling the product or spraying. The use of safety glasses with side shields (or goggles) are recommended if a face shield is not used. This product causes serious eye damage

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Use only in well ventilated areas. Under normal handling conditions no respiratory protection is required. If handling area is not well-ventilated use a NIOSH approved, air purifying respirator with cartridges / canisters approved for organic vapours.

Environmental exposure controls: Prevent product from entry into sewers and water courses

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Information on basic physical and chemical properties

Physical state	Liquid
Colour	Colourless.
Odour	characteristic.
Odour threshold	No data available
pH	6.3
Relative evaporation rate (butylacetate=1)	No data available
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	78.5°C
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Flammability (solid, gas)	Non flammable.
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	No data available
Solubility	No data available
Log Pow	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive properties	No data available

Safety Data Sheet (SDS) S-MOC 960

Version: 1.1

According to UN GHS 8th Ed

Revision Date: 14/10/2022

Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity: None known

Chemical stability: Not established.

Possibility of hazardous reactions: Not established

Conditions to avoid: Direct sunlight. Extremely high or low temperatures

Incompatible materials: Strong acids. Strong bases.

Hazardous decomposition products: fume. Carbon monoxide. Carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has not been tested. The data reported is for the main ingredients in the mixture.

S-metolachlor (87392-12-9)	
Acute toxicity:	
Acute Oral LD50 (rat)	1060 mg/kg
Acute Dermal LD50 (rat):	>5050 mg/kg
Acute Inhalation LC50 - 4 h (rat)	>2.02 mg/l/4h

Light aromatic solvent (64742-95-6)	
Acute toxicity:	
Acute Oral LD50 (rat)	5000 mg/kg
Acute Dermal LD50 (rat):	2000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	5.61 mg/l (4h)

Tristyrylphenol ethoxylate (99734-09-5)	
Acute toxicity:	
Acute Oral LD50 (rat)	4750 mg/kg
Acute Dermal LD50 (rat):	Not available.
Acute Inhalation LC50 - 4 h (rat)	Not available.
Skin corrosion/irritation	Causes skin irritation

Additional information	Not applicable
Serious eye damage/irritation	Causes serious eye damage
Additional information	Not applicable
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
Additional information	Based on available data, the classification criteria are not met
STOT-repeated exposure	Not classified
Additional information	Based on available data, the classification criteria are not met

Safety Data Sheet (SDS) S-MOC 960

Version: 1.1

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Revision Date: 14/10/2022

Aspiration hazard	Not classified
Additional information	Based on available data, the classification criteria are
Potential adverse human health effects and symptoms	Harmful if swallowed or inhaled.

Additional Information:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

S-metolachlor (87392-12-9)	
LC50 fish	3.9 mg/l (rainbow trout)
LC50 fish	4.9 mg/l (carp)
LC50 daphnia	25 mg/l
EC50 72h algae	0.1 mg/l (Scenedesmus subspicatus)
Persistence and degradability	May cause long-term adverse effects in the environment.
Bioaccumulative potential	Not established.
Log Kow	3.05
Mobility in soil	
Ecology - soil	Soluble in water.

Tristylphenol ethoxylate (99734-09-5)	
LC50 daphnia	2840 mg/l (Daphnia magna)

Light aromatic solvent (64742-95-6)	
LC50 fish	8,2 - 10 mg/l
ErC50 (algae)	3.1 mg/l
LC50 daphnia	4.5 mg/l (Daphnia magna)
EC50 72h algae	0.1 mg/l (Scenedesmus subspicatus)

SECTION 13. DISPOSAL CONSIDERATIONS
Waste treatment methods:
Product:

Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Ecology - waste materials:

Avoid release to the environment.

SECTION 14. TRANSPORT INFORMATION

UN Number	3082
UN proper shipping name	Environmentally Hazardous Substance; Liquid; N.O.S. (S-metolachlor 960 g/l)
Transport hazard class	9
Packaging group	III
Marine pollutant	Yes

SECTION 15. REGULATORY INFORMATION
Safety, health, and environmental regulations/legislation for the mixture:
Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous

Safety Data Sheet (SDS) S-MOC 960

Version: 1.1

According to UN GHS 8th Ed

Revision Date: 14/10/2022

Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

Relevant information regarding restrictions:**EU regulations:** Regulation EC 1272/2008 [EU-GHS/CLP]**Other National regulations:**

National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management Waste Act 59 of 2008.

Act 36 of 1947 of the Republic of South Africa. This product is registered under it is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

Classification according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]

GHS aligned – all sections

Full text of H- statements:

H227 Combustible liquid

H302 Harmful if swallowed.

H315 Causes skin irritation

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage

H332 Harmful if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.