Safety Data Sheet (SDS) MOXIMUM 40 SL

According to UN GHS 8th Ed
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Version: 1.1

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

Product identifier:

Identification as on the label/Trade name: MOXIMUM 40 SL

Common Name: Imazamox 40 g/l SL

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 Crop Protection (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
Reproductive toxicity (Category 2)	H361d
Aquatic Toxicity Acute (Category 1)	H400
Aquatic Toxicity Chronic (Category 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None known

The most important adverse human health effects: Suspected of damaging fertility or the unborn child.

Label elements

Hazard pictograms:
Signal Word: Warning

Hazard Statements:

H361d	Suspected of damaging fertility or the unborn child
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P102	Keep out of reach of children
P203	Obtain, read and follow all safety instructions before use.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P318	If exposed or concerned, get medical advice.
P391	Collect spillage
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/ national 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
Imazamox	114311-32-9	4%	Reproductive (Category 2) H361d Aquatic Acute (Category 1) H400 Aquatic Chronic (Category 1) H410
Ammonia water	1336-21-6	<3%	Skin corrosion (Category 1B) H314 Aquatic Acute (Category 1) H400
Polyoxyethylene isodecyl ether	61827-42-7	<15%	Acute Toxicity (Category 4) H302 Eye Damage (Category 1) H318
EDTA	60-00-4	<1%	Eye Irritation (Category 1) H319

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 to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if you feel unwell.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Seek medical attention immediately.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

In case of ingestion: Seek medical advice immediately. Rinse mouth thoroughly.

Most important symptoms and effects, both acute and delayed:

Anticipated acute effects:
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.

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 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:

Fires generate poisonous and corrosive fumes containing carbon oxides, nitrogen oxides and hydrochloric acid. Fine dust dispersed in air (particularly in confined spaces) may ignite if exposed to high temperature ignition source. These conditions are unlikely to occur in normal, outdoor use of this product.

Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Advice for fire-fighters:

Avoid inhaling hazardous vapours. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.
Contain fire control agents for later disposal according to Section 13.
Water can be used to cool unaffected containers.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment, and emergency procedures:

Personal precautions: Control access to area. Avoid breathing dust. Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.
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: Alert emergency response personnel. Evacuate unprotected spectators and animals.

Environmental precautions:

Stop leak if without risk. Do not touch spilled material. Use a light water spray to reduce vapours.
Prevent entry into drains, watercourses, or confined areas; dike if needed. This product is classified as very toxic to aquatic organisms and will cause long-term adverse effects in the aquatic environment.
If the product contaminates public water, inform appropriate authorities immediately in accordance with local regulations.

Methods for containment and cleaning up:

For small spills Contain spilled material by diking if possible. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth.Collect in suitable and properly labelled containers.
For large spills Prevent entry into drains, watercourses, or confined areas. Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spill material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the

spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal consideration

Reference to other sections:

See section 1 for emergency contact numbers

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:

Avoid contact with skin, eyes, and clothing. Do not breathe dust or spray mist. Wear personal protective equipment Use with adequate ventilation. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Remove contaminated clothing and protective equipment before entering eating areas.

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

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated area. Store under lock and key. Keep out of the reach of children , animals and unauthorised persons.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL): No information available.

Biological exposure indices (BEI): No information available.

Additional exposure limits under the conditions of use: No information available

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. 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: Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing. Keep working clothes separately. Contaminated work clothing should not be allowed out of the workplace. Wash hands and face before breaks and immediately after handling the product. When using do not eat, drink, or smoke. Keep away from food, drink, and animal feed.

Remove and wash all contaminated protective equipment before re-use. Remove clothing/PPE immediately if material gets inside. Wash thoroughly and put on clean clothing. Dispose of rinse water in accordance with local and national legislation.

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: Avoid inhaling fumes or spray drift. Respiratory protection is not required for normal use and handling. Where there is potential for airborne exposure in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

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

Appearance	Homogeneous clear liquid
Colour	Yellowish
Odour	Characteristic
Odour threshold	No data available
pH	5.0-7.0 at 20°C
Melting point / freezing point (° C)	approx. < 0°C
Boiling point (° C)	approx. 100°C
Flash point (° C)	No data available
Evaporation rate	No data available
Flammability	Non-flammable
Upper /lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density (25°C) g/cm^3	1.02±0.02g/mL at 20°C
Water solubility (mg/l) at 20°C	Fully soluble
Partition coefficient : n-octanol/water	Not applicable
Auto-ignition temperature (° C)	No data available
Decomposition temperature (° C)	No data available
Viscosity, dynamic (mPa s)	No data available
Explosive properties	No data available
Oxidising properties	No data available

SECTION 10. STABILTY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use

Chemical stability: Stable for up to 2 years when stored in a dry, cool covered warehouse in original, well-labelled containers. Store at low temperature conditions, below 50 OC, preferably below 30OC and not for prolonged periods in direct sunlight.

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use

Conditions to avoid: Avoid the formation of dust clouds. To avoid thermal decomposition, do not overheat

Incompatible materials: The product is incompatible with strong oxidising agents.

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has been tested. The data reported is for the mixture (Imazamox 40 g/l SL).

Acute toxicity:

Acute Oral LD50 (rat-female)	>5000 mg/kg
Acute Dermal LD50 (rabbit):	>4000 mg/kg
Acute Inhalation LC50 - 4 h (rat)	>6.6 mg/l
Skin irritation/ corrosion	No irritation to skin (rabbits)
Eye damage / irritation	No irritation to eyes (rabbits)
Respiratory or skin sensitization	Not a skin sensitizer (guinea pig)
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available
Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

Additional Information:

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

SECTION 12. ECOLOGICAL INFORMATION

Imazamox CAS No. 114311-32-9	
Toxicity	
Effects on Birds: Acute oral LD50	Bobwhite quail >1846 mg/kg. Mallard duck >1950mg/kg
Effects on Fish: LC50 (96h)	Rainbow trout >122 mg/l. Bluegill: 119 mg/l
Effects on Daphnia:	EC50 (48 h): 122 mg/l.
Effects on Algae:	EC50(120h) >0.037 mg/l
Effects on Bees:	LD50 (48h, oral)> 40µg/bee LD50 (72h, contact)> 25µg/bee
Effects on Earthworm:	LC50 (14 days): >901 mg/kg soil.
Persistence and degradability	Not readily biodegradable (by OECD criteria).
Bioaccumulation potential	Does not accumulate in organisms.
Mobility in Soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	Toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product:

Keep out of drains, sewers, ditches, and waterways. Refer to container label for disposal information. Treat as hazardous waste and dispose of in accordance with local/ regional/ national/ international regulations.

Container:

Refer to container label for disposal information. Triple or pressure rinse empty containers. Pour rinse water into spray tank. Dispose of as hazardous waste. Do not contaminate water when disposing of rinse water. Dispose of using an approved waste disposal service provider. Follow all local/ regional/ national/ international regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number	3082
UN proper shipping name	Environmentally Hazardous, Liquid, N.O.S (Imazamox 40 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 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

Relevant H statements (number and full text):

H302: Harmful if swallowed.
H314: Causes severe skin burns and eye damage.
H318: Causes serious eye damage.
H319: Causes eye irritation.
Aquatic acute toxicity (Category 1): Very toxic to aquatic life
Aquatic chronic toxicity (Category 1): 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.