

Safety Data Sheet (SDS) CalyPro 2.4-D SL

According to UN GHS 8th Ed
Revision Date: 01/07/2022

First print date: 01/06/2018
Version: 1.1

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

Product identifier:

Identification as on the label/Trade name: CalyPro 2.4D SL

Common name: 2,4-D Sodium salt 25g/L SL

Relevant identification uses of the substance and uses advised against:

Identified uses: Plant Growth Regulator

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
Skin Sensitisation (Category 1)	H317
Aquatic Toxicity Chronic (Category 2)	H411

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: May cause an allergic skin reaction.

Label elements



Hazard pictograms:

Signal Word: Warning

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Hazard Statements:

H317	May cause an allergic skin reaction
H411	Toxic to aquatic life with long lasting effects

Precautionary Statements:

P102	Keep out of reach of children
P103	Read label before use
P280	Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles
P273	Avoid release to the environment.
P302+P352	IF ON SKIN: Wash with plenty of water and non-abrasive soap.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage
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
2,4-D sodium salt (contains 25g 2,4-D acid)	2702-79-9	2.9%	Acute toxicity (Category 4) H332 Skin sensitisation (Category 1) H317 Eye damage (Category 1) H318 Aquatic Chronic (Category 2) H411
Water		To 100%	Not classified

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:

Remove the patient from the area of exposure. Wash off remaining material with plenty of water. Avoid further exposure. If irritation persists, consult a doctor.

In case of inhalation: If inhaled, remove from contaminated area to fresh air and assist breathing as required. Seek medical attention if irritation persists.

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. Seek 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: Rinse mouth with water. Seek medical attention or call a poison control centre for treatment advice if the victim feels unwell. Do not induce vomiting unless instructed to do so by a poison control centre or

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doctor. Do not give anything by mouth to an unconscious person

Most important symptoms and effects, both acute and delayed:

Anticipated acute effects: None known

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.

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:

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: Avoid contact with skin and eyes.

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. Prevent spilled product from entering sewers, waterways or ground water.

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. 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 7 for information on safe handling.

See section 8 for information on personal protection equipment.

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See section 13 for information on disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin and eyes. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking.

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 its original, labelled container, tightly closed in an isolated, dry, cool, and well-ventilated area. Avoid excess heat. Not to be stored next to foodstuffs, feed and water supplies. Keep out of reach of children and animals.

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. 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: Provide adequate ventilation. 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 ventilated areas. Under normal handling conditions no respiratory protection is required.

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	Soluble Liquid concentrate
Colour	Off white
Odour	None

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Odour threshold	No data available
pH	7-7.4
Melting point / freezing point (°C)	No data available
Boiling point (°C)	No data available
Flash point (°C)	No data available
Evaporation rate	No data available
Flammability	No data available
Upper /lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density (25°C) g/cm ³	No data available
Water solubility (g/l) at 20°C	Completely soluble
Partition coefficient : n-octanol/water	No data available
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
Explosive limits	No data available

SECTION 10. STABILITY AND REACTIVITY
Reactivity:

The product is stable under normal conditions.

Chemical stability:

The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50 °C, preferably below 30 °C, and not for prolonged periods in direct sunlight.

Possibility of hazardous reactions:

No information available.

Conditions to avoid:

Avoid excessive heat sources.

Incompatible materials:

None known

Hazardous decomposition products:

Carbon monoxide and Hydrogen chloride

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.

2,4-D sodium salt tech CAS No. 2702-72-9	
Acute toxicity:	
Acute Oral LD50 (rat - male)	666-806 mg/kg
Acute Dermal LD50 (rat):	No data available
Acute Inhalation LC50 - 4 h (rat)	No data available

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Skin irritation/ corrosion (rabbits)	No data available
Eye damage / irritation (rabbits)	No data available
Respiratory or skin sensitization (guinea pig)	Skin sensitizer
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

2,4-D Sodium Salt tech CAS No. 2702-72-9 Active ingredient	
Toxicity	
Birds Acute oral LD ₅₀	>2025mg/kg Wild ducks
Aquatic Toxicity Fish LC ₅₀ (96 h)	>100 mg/l (rainbow trout)

2,4-D tech CAS No. 2702-72-9	
Toxicity	
Birds Acute oral LD ₅₀	>1000mg/kg Wild ducks; 668 mg/kg Japanese quail and Pigeons; 472mg/kg Pheasants
Aquatic Toxicity Fish LC ₅₀ (96 h)	>100 mg/l (rainbow trout)
Aquatic Toxicity Daphnia LC ₅₀ (21 d)	235 mg/l
Algae EC ₅₀ (5d)	33.2 mg/l (<i>Selenastrum capricornutum</i>)
Bee Toxicity LD ₅₀	104.5 µg/ bee (Oral)
Worms LC ₅₀ (7d) earthworms	860 mg/kg soil
Metabolism	In plants, metabolism involves hydroxylation, decarboxylation, cleavage of the acid side-chain, and ring opening.
Persistence and degradability	DT50 in soil <7 d. Koc c. 60.
Bioaccumulation potential	Not determined
Mobility in soil	Rapid degradation in soil prevents significant downward movement under normal conditions.

SECTION 13. DISPOSAL CONSIDERATIONS
Waste treatment methods:
Product:

Keep out of drains, sewers, ditches, and waterways. Open dumping or burning of this pesticide is prohibited.

Waste resulting from the use of this product cannot be re-used or reprocessed. 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. Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is cleaned, reconditioned, or destroyed. Rinse empty container three times with a volume of water equal to at least one tenth of that of the container. Pour rinse water into spray tank. Dispose of as hazardous waste.

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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 Substance; Liquid; N.O.S. (2,4-D Sodium salt 25 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):

H332-Harmful if inhaled

Skin sensitisation (Category 1) : My cause an allergic skin reaction

Eye damage (Category 1): Causes serious eye damage

Aquatic chronic toxicity (Category 2): 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.