

Safety Data Sheet (SDS) Sianamied 520

According to UN GHS 8th Ed
Revision Date: 07/05/2022

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: Sianamied 520

Common name: Cyanamide 520g/L SC

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:

Erintrade cc t/a RT Chemicals, 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
Acute toxicity oral (Category 4)	H302
Acute toxicity dermal (Category 4)	H312
Acute toxicity inhalation (Category 4)	H332
Skin corrosion (Category 1)	H314
Skin sensitization (Category 1)	H317
Carcinogenicity (Category 2)	H351
STOT RE (Category 2)	H373
Reproductive Toxicity (Category 2)	H361fd
Aquatic Chronic (Category 3)	H412

Label elements



Hazard pictograms:

Signal Word: Danger

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Hazard Statements:

H302	Harmful if swallowed
H312	Harmful in contact with skin
H332	Harmful if inhaled
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure
H361fd	Suspected of damaging fertility or the unborn child
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements:

P102	Keep out of reach of children
P103	Read label before use
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P233	Keep container tightly closed
P260	Do not breathe dust/fumes/gas/mist/vapours/spray.
P264	Wash hands, forearms, and face thoroughly after handling
P270	Do not eat, drink, or smoke when using this product.
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 to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER or doctor/physician.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up
P391	Collect spillage
P501	Dispose of contents/container in accordance with local/regional/ national regulations

Other hazards:

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC)	CAS Number.	Concentration % by weight	Classification
			EC1272/2008

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Cyanamide	420-04-2	46.4%	Acute Toxicity Oral (Category 3) H301 Acute Toxicity dermal (Category 3) H311 Skin corrosion (Category 1) H314 Eye damage (Category 1) H318 Skin sensitisation (Category 1) H317 Carcinogenicity (Category 2) H351 STOT RE (thyroid) (Category 2) H373 Reproductive Toxicity (Category 2) H361fd Aquatic Chronic (Category 3) H412
Phosphoric Acid (H ₃ PO ₄)	7664-38-2	<5%	Skin corrosion (Category 1B) H314
Other inerts		Balance to 100%	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

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:

General: If exposed or concerned, get medical advice.

In case of inhalation: If inhaled, remove to fresh air. Treat symptomatically and supportively. Seek medical attention.

In case of skin contact: Remove contaminated clothing and wash skin with plenty of soap and water. Get medical advice if person feels unwell, or if irritation or rash develops Wash clothing before reuse.

In case of eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice.

In case of ingestion: If swallowed , rinse mouth with water. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention immediately. Loosen tight clothing such as a collar,tie, belt, or waistband.

Most important symptoms and effects, both acute and delayed:

Erythema, nausea, increased pulse frequency, fall in blood pressure, headache, irritation of skin & mucous membrane after large amounts circulatory depression up to unconsciousness are possible.

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: Foam or water spray can be used for larger fires or cooling of unaffected stock but avoid the accumulation of polluted run-off from the site.

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:

Fire may produce irritating or poisonous vapours, mists, or other products of combustion. Remove spectators from

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surrounding area. Evacuate downwind. Remove container from fire area if possible. Use a recommended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapours and fumes from burning materials. 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:**

For non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures

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.

Environmental precautions:

Stop leak if without risk. Do not touch spilled material. Prevent entry into drains, watercourses, or confined areas; dike if needed. If the product contaminates public water, inform appropriate authorities immediately in accordance with local regulations. Dispose in a safe manner in accordance with local/national regulations.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth.

For large spills Prevent entry into drains, watercourses, or confined areas.

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

Reference to other sections:

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:**

Read the label before use. Do not handle this until all safety precautions have been read and understood. Use protective clothing. Wash thoroughly after handling. Remove contaminated clothing and wash before reusing. Use adequate ventilation. Avoid direct contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wear full-face mask and eye protection. Do not use spray equipment contaminated with this product for any other purpose unless first thoroughly cleaned with a suitable cleaning detergent.

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 locked up in the closed original packaging out of reach of children, unauthorised persons and animals. Store in a dry, cool, well ventilated area. Keep away from food, drink and animal feed.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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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, exhaust ventilation or other engineering controls. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protective Equipment

Eye/face protection: Wear chemical goggles or face shield when mixing or applying product.

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: Wear appropriate chemical resistant overalls and rubber boots and rubber gloves. Avoid any skin exposure.

Respiratory protection: Where product is being sprayed and a mist could be produced a respirator should be worn. It should be fitted with a NOSH approved cartridge, suitable for agricultural chemicals.

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	Liquid
Colour	Odourless
Odour	No data available
Odour threshold	No data available
pH	No data available
Melting point / freezing point (°C)	No data available
Boiling point (°C)	No data available
Flash point (°C)	Non flammable
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)	No data available
Water solubility (g/l) at 20°C	Completely soluble in water
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.

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Chemical stability:

Unstable at temperatures over 20°C .Stable at temperatures lower than 5°C.

Possibility of hazardous reactions:

No information available.

Conditions to avoid:

Avoid overheating, exposure to direct sunlight, temperatures above 40°C

Incompatible materials:

Strong oxidizing agents, acids, bases, combustible materials.

Hazardous decomposition products:

Hydrogen cyanide, Nitrogen Oxides, Carbon Monoxide, Carbon Dioxide, Cyanide, Fumes, Ammonia.

Polymerisation : may occur at high pH (alkaline conditions)

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.

Cyanamide CAS No. 420-04-2	
Acute toxicity:	
Acute Oral LD50 (rat - male)	142 mg/kg
Acute Dermal LD50 (rat):	848 mg/kg
Acute Inhalation LC50 - 4 h (rat)	>1 mg/l air
Skin irritation/ corrosion (rabbits)	Severe skin irritant
Eye damage / irritation (rabbits)	Severe eye irritant
Respiratory or skin sensitization	Causes sensitisation
Germ cell mutagenicity	No adverse effect observed
Carcinogenicity	No adverse effect observed
Reproductive toxicity	Suspected of damaging fertility or the unborn child
Specific Target Organ Toxicity STOT single exposure	Not classified
Specific Target Organ Toxicity STOT repeated exposure	Causes damage to organs through prolonged or repeated exposure (Thyroid)
Aspiration hazard	Not classified

Additional information:

A vasomotor reaction may occur when handling or using Cyanamide combined with alcohol consumption. Exposure to and/or consumption of alcohol may increase toxic effects., Causes severe corneal edema. Temporary blindness has been reported. Symptoms may be delayed., Headache, Dizziness, Lowered blood pressure, Salivation, Ataxia.,

Phosphoric Acid 67-56-1	
Acute toxicity:	
Acute Oral LD50 (rat - male)	No data available
Acute Dermal LD50 (rabbit):	No data available
Acute Inhalation LC50 - 6 h (rat)	No data available
Skin irritation/ corrosion (rabbits)	Causes skin corrosion
Respiratory or skin sensitization (Guinea pig)	No data available
Carcinogenicity	No data available
Mutagenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	No data available

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Specific Target Organ Toxicity STOT repeated exposure	No data available
Aspiration hazard	No data available

Additional Information:

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea.

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

SECTION 12. ECOLOGICAL INFORMATION

Cyanamide CAS No. 420-04-2	
Toxicity	
Birds Acute oral LD ₅₀ Dietary LC ₅₀ (5D)	350 mg/kg Bobwhite quail >5000 mg/kg Bobwhite qual and Mallard ducks
Aquatic Toxicity Fish LC ₅₀ (96 hr) Aquatic Toxicity Daphnia EC ₅₀ (48 hr) Algae Toxicity EC ₅₀ (96h) Bee Toxicity LD ₅₀	44 mg/l (bluegill sunfish); 87 mg/l (carp); 90mg/l (rainbow trout) 3.2 mg/l 13.5 mg/l (Selenastrum capricornutum) Toxic to bees
Persistence and degradability	Hydrogen cyanamide rapidly degrades to urea (DT ₅₀ 1 - 6 days under aerobic conditions).
Bioaccumulation potential	Low bioaccumulation potential.
Mobility in soil	Product is readily soluble in water, but leachability expected to be low.

Phosphoric Acid 67-56-1	
Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulation potential	No data available
Mobility in Soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

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	2922
UN proper shipping name	Corrosive Liquid; Toxic; N.O.S. (Cyanamide 520 g/l).
Transport hazard class	8

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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):

H301-Toxic if swallowed

H311-Toxic in contact with skin

H318-Causes serious eye damage

H410-Very toxic to aquatic life with long lasting effects

STOT RE 2- Specific Target Organ Toxicity repeated exposure (Category 2) : May cause damage to organs through prolonged or repeated exposure (Thyroid)

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.