

## XYPEX BIO-SAN C500

Infosafe No.: LQBXM  
ISSUED Date : 15/11/2023  
ISSUED by: Concrete Waterproofing  
Manufacturing Pty Ltd

### Section 1 - Identification

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**Product Identifier**

XYPEX BIO-SAN C500

**Company Name**

Concrete Waterproofing Manufacturing Pty Ltd

**Address**

76 Merkel Street Thurgoona  
NSW 2640 AUSTRALIA

**Telephone/Fax Number**

Tel: 02 6040 2444

**Emergency Phone Number**

0418 479 448 (9 - 5pm)

**Recommended uses and any restrictions on use or supply**

Waterproofing and protection of concrete.

**Additional Information**

Imported by:

Demden Limited

Address: 29 Grey Street, Tauranga 3144 New Zealand

Phone number: +64 7 575 5410

New Zealand 24 hour Emergency Phone Number: 0800 764 766

### Section 2 - Hazard(s) Identification

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**GHS classification of the substance/mixture**

Classified as Hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020, New Zealand.

Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2020 Transport of Dangerous Goods on Land.

Skin corrosion/irritation: Category 2

Serious eye damage Category 1

Skin sensitization: Category 1

Carcinogenicity: Category 1

Specific target organ toxicity (single exposure): Category 3 (Respiratory tract irritation)

Specific target organ toxicity – repeated exposure: Category 2

Hazardous to the aquatic environment acute Category 1

Hazardous to the aquatic environment chronic Category 2

**Signal Word (s)**

DANGER

**Hazard Statement (s)**

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

H335 May cause respiratory irritation

H350 May cause cancer by inhalation  
H373 May cause damage to organs (respiratory organs) through prolonged or repeated exposure  
H400 Very toxic to aquatic life  
H411 Toxic to aquatic life with long lasting effects

**Pictogram (s)**

Exclamation mark, Corrosion, Health hazard, Environment



**Precautionary Statement – Prevention**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash skin 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 to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary Statement – Response**

P308+P313 IF exposed or concerned: Get medical advice/attention.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a POISON CENTER/doctor if you feel unwell.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
P314 Get medical advice/attention if you feel unwell.  
P391 Collect spillage.

**Precautionary Statement – Storage**

P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

**Precautionary Statement – Disposal**

P501 Dispose of contents/container to an approved waste disposal plant.

**Section 3 - Composition and Information on Ingredients**

**Chemical Characterization**

Powder

**Ingredients**

Name	CAS	Proportion
Ferric Oxide	1309-37-1	45-55 %
Portland cement	65997-15-1	10-15 %
copper(II) oxide	1317-38-0	5-7 %
Zeolites	1318-02-1	2-3 %
Quartz respirable fraction	14808-60-7	<1 %
Silver	7440-22-4	<0.15 %
Ingredients determined not to be hazardous		Balance

## Section 4 - First Aid Measures

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### Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

### Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek immediate medical attention.

### Skin

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard. Seek medical attention.

### Eye

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.

### First-aid Facilities

Eyewash, safety shower and normal washroom facilities.

### Advice to Doctor

Treat symptomatically

### Other Information

For advice in an emergency, contact a Poisons Information Centre or a doctor at once. (0800 764 766)

## Section 5 - Firefighting Measures

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### Suitable Extinguishing Media

Use appropriate fire extinguisher for surrounding environment.

### Hazards from Combustion Products

Non combustible material.

### Specific hazards arising from the chemical

This product is non combustible. However heating can cause expansion or decomposition leading to violent rupture of containers.

### Hazchem Code

2Z

### Decomposition Temperature

Alkaline earth compounds: 580°C

### Precautions in connection with fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

## Section 6 - Accidental Release Measures

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### Emergency Procedures

Increase ventilation. Evacuate all unprotected personnel. Always wear full protective equipment as referred to under Section 8 to prevent any contamination of skin, eyes, respiratory system and personal clothing. Keep the material dry if possible. When the product is in a dry state, avoid airborne dust generation when cleaning up. Use vacuum cleaner (Industrial portable units), equipped with high efficiency particulate filters (HEPA filter) or equivalent technique, and transfer material to a suitable container. OR Wipe up the dust by mopping, wet brushing or water sprays or hoses with a fine mist to avoid the dust becoming airborne and remove slurry. If the product has become wet, clean up and place in watertight container. Allow material to dry and solidify before disposal. Wash surfaces well with soap and water. Seal all wastes in labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

## Section 7 - Handling and Storage

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### Precautions for Safe Handling

Avoid inhalation of dust, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the work atmosphere. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Avoid mishandling of pails or bags so as to prevent accidental bursting and creation of dust. Use handling equipment and controls if necessary to avoid injury.

Avoid exposure. Do not handle until all safety precautions have been read and understood.

### Conditions for safe storage, including any incompatibilities

Store in a dry place. Protect from moisture.

Store this product in a draught free environment, clear of the ground, avoiding humid conditions and extremes of temperature (minimum lower temperature of 7°C).

Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

The product should be used within 12 months of the date of production; product should not have been exposed to the atmosphere prior to use.

### Storage Temperatures

Avoid storage temperatures below 7°C.

## Section 8 - Exposure Controls and Personal Protection

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### Occupational Exposure Limits (OEL)

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Crystalline silica (quartz) (respirable dust)

TWA: 0.025 mg/m<sup>3</sup>

Notice: carcinogen category 1

Portland cement

TWA: 1 mg/m<sup>3</sup> (respirable dust)

TWA: 3 mg/m<sup>3</sup>

NOTE: dsen

Copper Oxide

TWA: 0.1 mg/m<sup>3</sup>

NOTE: dsen

Iron oxide (dust and fume)

TWA: 5 mg/m<sup>3</sup>

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

carcinogen category 1: Known or presumed human carcinogen.

dsen: Dermal sensitiser

Source: Workplace Exposure Standards and Biological Exposure Indices.

### Biological Limit Values

No biological limits allocated.

### Appropriate Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing solid/dust away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn.

### Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter (class P1 or P2 particulate) should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

#### Eye Protection

Safety glasses with full face shield should be used. Eye protection devices should conform to relevant regulations.

Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

#### Hand Protection

Wear gloves of impervious, abrasion and alkali resistant material. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

#### Thermal Hazards

No further relevant information available.

#### Body Protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

## Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Powder	Appearance	Brown particulate powder
Colour	Brown	Odour	Odourless
Decomposition Temperature	Alkaline earth compounds: 580°C	Melting Point	Not applicable
Boiling Point	Not applicable	Solubility in Water	Powder forms slurry with water, hardens over time
Specific Gravity	2.0 to 2.8 (water = 1)	pH	9.1-9.8 (EPA method 2 parts water to 1 part powder by volume)
Vapour Pressure	Not applicable	Vapour Density (Air=1)	Not applicable
Evaporation Rate	Not applicable	Coefficient Water/Oil Distribution	Not available
Odour Threshold	Not available	Viscosity	Not applicable
Partition Coefficient: n-octanol/water	Not available	Flash Point	Not applicable
Flammability	Non combustible	Auto-Ignition Temperature	Not applicable
Explosion Limit - Upper	Not applicable	Explosion Limit - Lower	Not applicable

## Section 10 - Stability and Reactivity

#### Chemical Stability

The product is chemically stable. When mixed with water it will harden, with time, into a stable mass. Products may liberate carbon monoxide or carbon dioxide.

#### Reactivity and Stability

Alkaline earth compounds react vigorously with strong acids. Powder forms slurry with water, hardens over time. It should be noted that the uncontrolled use of aluminium powder in wet cement should be avoided as hydrogen is produced.

**Conditions to Avoid**

Avoid humid and drafty environments during storage. Also avoid storage temperatures below 7°C.

**Incompatible Materials**

It should be noted that the uncontrolled use of aluminium powder in wet cement should be avoided as hydrogen is produced.

**Hazardous Decomposition Products**

Not available

**Possibility of hazardous reactions**

None known.

**Hazardous Polymerization**

Will not occur.

## Section 11 - Toxicological Information

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**Toxicology Information**

The cement incorporated with the other ingredients in this product has been subject to a Limit test.

**Acute Toxicity - Dermal**

Limit test, rabbit, 24 hours contact, 2,000 mg/kg body weight – no lethality.

**Ingestion**

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

**Inhalation**

May cause respiratory irritation. Inhalation of product dust can cause irritation of the nose, throat and respiratory system. Can burn the throat and respiratory tract. Coughing, sneezing and shortness of breath may occur following exposures in excess of occupational exposure limits. Chronic exposure to this material may aggravate existing respiratory disorders and lung disorders such as bronchitis, emphysema and asthma. Onset and progression are related to dust concentrations and duration of exposure.

Repeated exposure to respirable crystalline silica dust may lead to silicosis, or other serious delayed lung injury. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or signs of ill-health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased, and may also lead to other diseases including heart disease and scleroderma.

**Skin**

Causes skin irritation. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis. May cause an allergic skin reaction.

When skin is exposed to the product in its dry or wet state, thickening, cracking or fissuring of the skin may occur. Prolonged contact in combination with abrasion can cause severe burns.

Cement may have an irritating effect on moist skin (due to transpiration of humidity) after prolonged contact. Prolonged skin contact with wet cement or fresh concrete may cause serious burns because they develop without pain being felt. Repeated skin contact with wet cement may cause dermatitis.

**Eye**

Causes eye damage. Eye contact will cause stinging, blurring, tearing, severe pain and possible burns, necrosis, permanent damage and blindness. Direct contact either in dry or wet form may cause effects ranging from moderate eye irritation (e.g. conjunctivitis or blepharitis) to chemical burns or blindness.

**Respiratory Sensitisation**

Not expected to be a respiratory sensitiser.

**Skin Sensitisation**

May cause an allergic skin reaction.

This product contains Portland cement which is classified as a skin sensitizer.

Some individuals may exhibit eczema upon exposure to wet cementitious products, caused either by the high pH which induces irritant contact dermatitis, or by an immunological reaction to soluble Cr (VI) which elicits allergic contact dermatitis. The response may appear in a variety of forms ranging from a mild rash to severe dermatitis and is a combination of those two mechanisms. An exact diagnosis is often difficult to assess.

**Germ Cell Mutagenicity**

Not considered to be a mutagenic hazard.

**Carcinogenicity**

May cause cancer by inhalation. Classified as a Known or presumed human carcinogen.

May cause cancer by inhalation. Respirable crystalline silica is classified by International Agency for Research on Cancer (IARC) as carcinogenic to humans by inhalation (Group 1) .

**Reproductive Toxicity**

Not considered to be toxic to reproduction.

**STOT - Single Exposure**

May cause respiratory irritation.

**STOT - Repeated Exposure**

May cause damage to organs respiratory organs through prolonged or repeated exposure.

**Aspiration Hazard**

Not expected to be an aspiration hazard.

## Section 12 - Ecological Information

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**Ecotoxicity**

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. Alkaline conditions may also have effects on vegetation.

**Persistence and degradability**

Alkaline earth material is non bio-degradable; it reacts with atmosphere and dissolved carbon dioxide to form calcium carbonate (chalk).

**Mobility**

Not available

**Bioaccumulative Potential**

None of the substances in this mixture are known to bioaccumulate .

**Other Adverse Effects**

Not available

**Environmental Protection**

Do not discharge this material into waterways, drains and sewers.

**Acute Toxicity - Fish**

LC50 (Rainbow trout) 0.0207 mg/l/96h

**Acute Toxicity - Daphnia**

LC50 (Flea) 0.45 mg/l/48h

**Hazardous to the Ozone Layer**

This product is not expected to deplete the ozone layer.

## Section 13 - Disposal Considerations

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**Disposal Considerations**

Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations.

**Product Disposal:**

Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. It can be disposed by burning in an approved high temperature incineration facility; or alternatively, harden with water to avoid dust creation.it can be reacted with the base component to enable it to cure to an inert solid that can be disposed in a licensed landfill facility.

Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must also be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed.

Do not dispose into the sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected.

In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Notice 2017. Further details regarding disposal can be obtained on the EPA New Zealand website under specific group standards.

#### Container Disposal:

The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service.

Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous.

In New Zealand, the packaging (that may or may not hold any residual substance) that is lawfully disposed of by householders or other consumers through a public or commercial waste collection service is a means of compliance with regulations.

## Section 14 - Transport Information

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### Transport Information

#### Road and Rail Transport:

Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2020 Transport of Dangerous Goods on Land.

This material is classified as a Class 9 – Miscellaneous Substances

Must not be loaded in the same freight container or on the same vehicle with:

- Class 1: Explosives

Class 9 dangerous goods that contain organic matter must not be loaded in the same bulk container or tankwagon with dangerous goods of Division 5.1 unless the Class 9 and Division 5.1 dangerous goods are in separate compartments of a bulk container or tankwagon.

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices. Segregation devices may be used to segregate Dangerous goods of Class 9 when the nature of those dangerous goods requires them to be segregated from dangerous goods of Class 3, 4, 5, 6 or 8 or from food items.

#### Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No.: 3077

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains Copper Oxide)(MARINE POLLUTANT)

DG Class: 9

Packaging Group: III

EMS No.: F-A, S-F

Special provisions: 274, 335, 966, 967, 969

#### Air Transport (ICAO/IATA):

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 3077

Proper Shipping Name: : Environmentally hazardous substance, solid, n.o.s.(Contains Copper Oxide)

Class: 9

Packing Group: III

Label: Miscellaneous

Packaging Instructions (passenger & cargo): 956

Packaging Instructions (cargo only): 956

Special provisions: A97, A158, A179, A197, A215

### UN Number

3077

### Proper Shipping Name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(Contains Copper Oxide)

### Hazard Class

9



**Hazchem Code**

2Z

**Special Precautions for User**

Not available

**Packing Group**

III

**IERG Number**

47

**IMDG Marine pollutant**

Yes

**Transport in Bulk**

Not available

## Section 15 - Regulatory Information

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**Regulatory Information**

Classified as Hazardous according to the Hazardous Substances (Hazard Classification) Notice 2020, New Zealand.  
Group Standard: Surface Coatings and Colourants Carcinogenic Group Standard 2020.

**HSNO Approval Number**

HSR002679

**Tolerable exposure limit (TEL)**

Not available

**Environmental exposure limit (EEL)**

Not available

**Certified Handler**

Not required

**Tracking**

Not required

**Controlled Substance Licence Requirements**

Not required

**Montreal Protocol**

Not listed

**Stockholm Convention**

Not listed

**Rotterdam Convention**

Not listed

**Agricultural Compounds, including Veterinary Medicines (ACVM)**

Not available

## Section 16 - Any Other Relevant Information

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**Date of preparation or last revision of SDS**

SDS created: November 2023

**Literature References**

Hazardous Substances and New Organisms Act (1996).

Health and Safety at Work (Hazardous Substances) Regulations (2017).

Workplace Exposure Standards and Biological Exposure Indices.

Agricultural Compounds and Veterinary Medicines Act 1997.

Montreal Protocol on Substances that Deplete the Ozone Layer.

Stockholm Convention on Persistent Organic Pollutants (POPs).

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Transport of Dangerous goods on land NZS 5433.  
Recommendations on the Transport of Dangerous Goods - Model Regulations.  
Dangerous Goods Emergency Action Code List.  
Hazardous Substances (Safety Data Sheets) Notice (2017). (EPA Consolidation)  
Assigning a hazardous substance to a group standard.  
Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

## **END OF SDS**

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