



SAFETY DATA SHEET

CTX 108

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: CTX 108

Product type: Biocidal surface treatment for timber

CTX 108 is a mixture of a synthetic pyrethroid (insecticide) and an organosulphur compound (fungicide) in aliphatic and aromatic petroleum solvents. **CTX 108** is registered with the South African Department of Agriculture, Land Reform and Rural Development (DALRRD) (Act No.36 of 1947) (Reg. No. L7445).

Restrictions on use: None

Chemical nature and use:

CTX 108 is a ready-for-use organic solvent-based solution containing specifically blended insecticidal and fungicidal active ingredients that provides a colourless surface treatment for protection of seasoned timber against wood borer and termite attack as well as discolouring fungi and mould growth. **CTX 108** contains a high level of insecticide to provide long term protection and to also control and eradicate wood boring insects in infested timber.

On application, the organic solvent provides a degree of penetration of the active ingredients into the wood structure and ensures rapid drying of the treated surfaces. After drying, any coating/finish can be applied on the treated wood surface.

Supplier: **Timberlife (Pty) Ltd**
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Emergency numbers:

Poisons Information Helpline: 0861 555 777 (24/7 emergency number)
GRIFFON Poison Information Centre: +27 82 446 8916

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2. HAZARD IDENTIFICATION

Physical hazards:

Flammable liquid category 3

Hazard statements:

H226: Flammable liquid and vapour

Health hazards:

Skin sensitiser category 1
STOT RE category 1

Hazard statements:

H317: May cause an allergic skin reaction
H372: Causes damage to the central nervous system through prolonged or repeated exposure
H373: May cause damage to liver and kidneys through prolonged or repeated exposure
H304: May be fatal if swallowed and enters airways

STOT RE category 2

Aspiration hazard category 1

Environmental hazards:

Aquatic acute category 1
Aquatic chronic category 1

Hazard statements:

H400: Very toxic to aquatic life
H410: Very toxic to aquatic life with long-lasting effects

Hazard pictograms and signal words (GHS label elements)

Signal word: **Danger**

Hazard pictograms:



Precautionary statement(s):

P210	Keep away from heat/sparks/open flames/hot surfaces and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe mist, vapours or spray.
P264	Wash hands and exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing shall not be allowed out of the workplace.
P273	Avoid release to the environment
P280	Wear protective gloves, protective clothing, eye protection and face protection.
P301+P316	IF SWALLOWED: Get emergency medical help immediately.
P302+P352	IF ON SKIN: Wash with plenty of water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water (or shower).
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable.

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P319	Get medical help if you feel unwell.
P321	Specific treatment: as recommended by medical practitioner or specialist.
P331	Do not induce vomiting
P333+P317	If skin irritation or rash occurs: get medical help.
P362+P364	Take off contaminated clothing and wash contaminated clothing before reuse.
P370+P378	In case of fire: Use dry chemical fire-extinguishing powder, sand, foam or carbon dioxide to extinguish.
P391	Collect spillage.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container as hazardous waste according to official regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Pesticidal active ingredients:

Cypermethrin (synthetic pyrethroid)	10 g.a.i./l (min)
2-(Thiocyanomethylthio) benzothiazole (TCMTB; organosulphur compound)	8 g.a.i./l (min)

Other ingredients:

Blend of aliphatic and aromatic petroleum solvents (carrier system).

Relevant hazardous ingredients and content:

Chemical/Common/Trade name		CAS number	Concentration (m/m %)	GHS Classification
Cypermethrin		67375-30-8	1.14	Acute oral Tox. 3 (H301)
				STOT SE 3 (H335)
				STOT RE 2 (H373)
				Aquatic Acute 1 (M = 1 000) (H400)
				Aquatic Chronic 1 (M = 1 000)
TCMTB		21564-17-0	0.91	Acute oral Tox. 4 (H302)
				Acute Tox. 2 (H330)
				Skin Irrit. 2(H315)
				Eye Irrit. 2 (H319)
				Skin Sens. 1 (H317)
				Aquatic Acute 1 (H400)
				Aquatic Chronic 1 (H410)
Trisol A	Light aromatic petroleum solvent	64742-95-6	96	Asp. Tox. 1 (H304)
	Medium aliphatic petroleum solvent	64742-88-7	< 2.0	Asp. Tox. 1 (H304) STOT RE 1 (Central nervous system – CNS) (H372)

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4. FIRST-AID MEASURES

IF EXPOSED OR CONCERNED: Get medical advice. Have this SDS at hand.

IF SWALLOWED: Get emergency medical help immediately and show this SDS to attending medical responder. Do NOT induce vomiting. Drink approximately 2 cups of water or milk to dilute the substance. If patient is unconscious, or vomiting persistently, do not give any fluids. If vomiting occurs, keep head below hips to prevent the patient from swallowing it or choking on it.

IF ON SKIN (or hair): Wash affected areas with soap and plenty of water (or shower). If spilled on person, immediately take off all contaminated clothing and shoes, and immediately rinse or shower as described. If skin irritation or rash occurs, or if feeling unwell: get medical help.

EYE CONTACT: Flush substance from the eyes with plenty of clean water. If wearing contact lenses, remove if easy to do. Continue flushing for 15 minutes, while holding the eyelids apart. Do not rub the eyes. Get medical help if irritation should persist.

IF INHALED: Remove person from source to fresh air. Get medical help if person should feel unwell or has trouble breathing.

INFORMATION FOR DOCTOR:

CTX 108 is not corrosive, irritating or acutely toxic. If swallowed, product is easily aspirated into the lungs and may cause fatal chemical pneumonitis. Treat supportively according to symptoms.

Most important symptoms/effects, acute and delayed:

- **Acute (immediate):**

Moderate dizziness or respiratory irritation if vapours are inhaled.

- **Delayed:**

If swallowed, aspiration into the lungs may cause fatal chemical pneumonitis. Repeated exposure may elicit an allergic skin reaction. Prolonged repeated skin contact may defat the skin, resulting in possible secondary irritation and dermatitis. Prolonged or repeated unprotected exposure causes damage to the central nervous system and may cause damage to other organs, e.g., the liver and kidneys.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Use dry chemical powder, sand, foam or carbon dioxide (CO₂).

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Flammability:

Product is highly flammable due to solvent content. Apply extinguishing media from a safe distance. Keep unauthorised people away and prevent entry to area. If possible, move containers away from fire. Intact, undamaged containers in proximity to the fire, but which cannot be safely moved away, may be kept cool with water spray.

Specific hazards:

May release irritating and toxic gases when exposed to high temperatures. Some of the active ingredients may decompose if heated above 60°C.

Protective equipment for fire-fighters:

Fire-fighters must take the usual precautions to avoid inhalation of smoke and wear flame-resistant fire-fighter workwear. Do not breathe mist, vapours or spray released from punctured or damaged product containers. Wear self-contained breathing apparatus.

Hazardous thermal decomposition products:

Toxic fumes of SO_x, CN⁻, Cl⁻ and NO_x may be evolved on combustion if heated above 60°C.

Environmental precautions:

Product is very toxic to aquatic life with long-lasting effects and hazardous to plants. Water spray or fog is not recommended for extinguishing the fire, but if water is somehow applied, dyke run-off water for safe disposal. Do not allow any run-off to enter drains, sewage, surface water or waterways. Dispose of any damaged containers as hazardous waste according to official regulations. Dispose of debris in a safe way.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Do not breathe mist, vapours or spray. Wear protective gloves, protective clothing, such as cotton or polyester overalls, wear eye protection (safety glasses or splash-proof goggles) and face protection. In confined spaces wear respiratory equipment. No smoking – product is highly flammable.

Environmental precautions:

Prevent further leakage or spillage if safe to do so. Keep away from heat/sparks/open flames/hot surfaces and other ignition sources. Take precautionary measures against static discharge. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools.

Avoid release to the environment. In case of large spills, dyke with inert material such as sand or diatomaceous earth to prevent entry into drains, sewage and surface water bodies such as rivers, dams or canals.

Local authorities should be advised if significant spillages cannot be contained.

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Methods for cleaning up:

Absorb or dyke with inert material such as sand or diatomaceous earth. Do not wash or swipe spillage into sewers, drains, rivers, dams or canals.

Collect spillage and place in appropriate containers for disposal. Dispose of contaminated material and product as hazardous waste according to official regulations at an approved hazardous waste site.

7. HANDLING AND STORAGE

Handling:

Obtain, read and follow all safety instructions.

Do not breathe mist, vapours or spray. Avoid contact with eyes and skin. Do not eat or drink while using the product. Keep away from heat/sparks/open flames/hot surfaces and other ignition sources. No smoking – product is highly flammable.

Wear protective gloves, protective clothing, such as cotton or polyester overalls, wear eye protection (safety glasses or splash-proof goggles) and face protection. In confined spaces wear respiratory equipment.

Take precautionary measures against static discharge. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools.

After handling, wash hands and exposed skin thoroughly with water and soap. Take off contaminated clothing and wash contaminated clothing before reuse. Contaminated work clothing shall not be allowed out of the workplace.

Avoid release to the environment. Do not discharge into rivers, dams and canals.

Storage:

Store locked up in a cool, dry, well-ventilated place.

Do not store near sources of sparks, flame or heat.

Keep out of reach of children, uninformed persons, and animals. Keep away from food and foodstuffs.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures:

Provide sufficient general and/or local exhaust ventilation to control inhalation exposure. Employees in facilities storing or utilising this material must have access to an eyewash facility and an emergency drench shower.

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Occupational Exposure Limit:

Occupational exposure limits (OELs) for airborne hazardous substances are stipulated in the Hazardous Chemical Agents (HCA) regulations (2021) of the South African Department of Employment and Labour (DoEL) in accordance with Section 43 of the SA Occupational Health and Safety Act, 1993 (Act No. 85 of 1993). Such limits have not been established for cypermethrin or 2-(thiocyanomethylthio) benzothiazole.

Examples of other international occupational exposure limits for cypermethrin are a ¹Polish limit of 1 mg/m³ and a USA Occupational Safety and Health Administration (²OSHA) “arbitrary” target concentration in workplace air of 1 mg/m³. Similar limits are not available for 2-(thiocyanomethylthio) benzothiazole.

Personal protective equipment:

Wear protective gloves, protective clothing, such as cotton or polyester overalls, wear eye protection (safety glasses or splash-proof goggles) and face protection when handling the product or freshly treated wood. If applying in confined spaces, wear approved respiratory equipment.

Hygiene measures:

Wash hands with soap and water before entering a rest area; before eating, drinking or smoking. Wash overalls and clothes regularly. Contaminated work clothing shall not be allowed to leave the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Transparent organic liquid
Colour	: Yellowish-brown
Odour	: Aromatic
pH	: Slightly acidic
Temperature stability	: Stable at temperatures of up to 60°C
Melting point	: 60 - 80°C (technical material)
Decomposition temperature	: Above 60°C
Flammability	: Highly flammable due to solvent content
Explosion properties	: Not established
Flash point	: Above 40°C (ASTM D-93)
Density @ 20°C	: ± 0.88 kg/litre
Solubility	: Aromatic solvents

¹ German GESTIS International Limit Values <https://limitvalue.ifa.dguv.de/>

² OSHA partially validated method number PV2063
<https://www.osha.gov/chemicaldata/sampling-analytical-methods>

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10. STABILITY AND REACTIVITY

Stability	:	Stable in neutral and acidic media
Conditions to avoid	:	Elevated temperatures
Materials to avoid	:	Strong oxidants and alkalis
Hazardous decomposition products	:	Toxic fumes of SO _x , CN ⁻ , Cl ⁻ and NO _x may be evolved on combustion if heated above 60°C.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	:	Oral LD ₅₀ : > 5 000 mg/kg (calculated) Dermal LD ₅₀ : > 5 000 mg/kg (converted ³) Inhalation LC ₅₀ : 5.6 mg/litre air (4 hours - calculated)
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Health effects:

- Acute toxicity: CTX 108 is not acutely toxic by ingestion, inhalation or dermal exposure.
- If swallowed, product is easily aspirated into the lungs and may cause fatal chemical pneumonitis.
- Skin contact: Not corrosive or irritating to the skin. Is a skin sensitiser; repeated exposure may cause an allergic skin reaction. Prolonged repeated skin contact may defat the skin. Defatting of the skin may cause secondary irritation and dermatitis.
- Eye contact: Not an eye irritant and not corrosive to the eyes, but eye contact may cause initial discomfort to the eyes. Eye discomfort should dissipate after washing the substance from the eyes.
- Inhalation: Not a respiratory irritant or sensitiser.
- STOT-SE and STOT-RE: No single exposure (SE) target organs are reported. Prolonged or repeated unprotected exposure causes damage to the central nervous system and may damage other organs, e.g., the liver and kidney.
- Carcinogenicity: Not a carcinogen.
- Germ cell mutagenicity: Not a germ cell mutagen.
- Reproductive toxicity: Not damaging to male or female fertility or the unborn child.

12. ECOLOGICAL INFORMATION

Mobility	:	Active ingredients have low mobility and strongly absorbs to soil.
Degradability	:	Practically biodegradable, but cypermethrin has a bactericidal effect.

³ Converted according to GHS guidance; CTX 108 is not classified as acutely toxic by the dermal route.

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Bioaccumulation : Due to biodegradation and recommended application rates, it is unlikely that bioaccumulation of cypermethrin and TCMTB will attain levels of environmental significance.

Ecotoxicity : **Birds**
Cypermethrin is minimally toxic to birds.
Acute oral LD₅₀: > 10000 mg/kg (mallard ducks)
> 2000 mg/kg (chickens)
TCMTB is moderately toxic to birds.
Acute oral LD₅₀: > 1 310 mg/kg (mallard ducks)
The petroleum solvent carrier system is of low toxicity to birds.

Bees

Cypermethrin is highly toxic to bees.

LD₅₀ (oral): 0.035 µg/bee

LD₅₀ (topical): 0.02 µg/bee

Bee toxicity data are not available for TCMTB or the petroleum solvent carrier system.

Aquatic reference values of CTX 108 active ingredients:

Ingredient	Cypermethrin		TCMTB	
	Acute L(E)C ₅₀	Chronic (21-day NOEC)	Acute L(E)C ₅₀	Chronic (21-day NOEC)
Fish (mg/litre)	0.00069 - 0.0024 (96-hour)	0.00003	0.0021 - 0.047 (96-hour)	0.00034
Daphnia/Cerodaphnia (mg/litre)	0.00015 - 0.00022 (48-hour)	0.00003	0.0153 – 0.096 (48-hour)	0.00089
M-factor	1 000	1 000	1	1
Algae 72-hour EC ₅₀ (mg/litre)	> 0.1	Not available	0.43	Not available

13. DISPOSAL CONSIDERATIONS

Product waste

Dispose of this material as hazardous waste at special waste collection points in accordance with local waste policy and regulations. If disposal of large volumes is necessary, the involvement of a recognised hazardous waste contractor is recommended. The competence of the contractor shall be established beforehand. Waste residues are not to be allowed to contaminate soil or water. Whenever possible, any waste product should be recovered and re-used.

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Packaging material

IN HOUSEHOLD USE: Ensure that the container is completely empty before disposal. Invert the empty container for at least 5 minutes to ensure that the last drippings are collected and used. Do not re-use the container for any other purpose. Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages. Return the empty container to the product supplier or puncture all plastic containers and flatten all metal containers before disposal.

IN COMMERCIAL USE: Ensure that the container is completely empty before disposal. Invert the empty container for at least 5 minutes to ensure that the last drippings are collected and used. Do not re-use the container for any other purpose. Do not bury, burn, dispose of at municipal household waste site or donate the container to any other parties that may use it as a container for food or beverages. Return the empty container to the product supplier or puncture all plastic containers and flatten all metal containers before disposal at licensed hazardous waste site.

14. TRANSPORT INFORMATION

UN Number	: 3350
Proper Shipping Name	: Pyrethroid pesticide, liquid, flammable, toxic
ADR / RID	: 3 Subsidiary Risk 6.1
IMDG / IMO	: 3 Subsidiary Risk 6.1
ICAO / IATA	: 3 Subsidiary Risk 6.1
Packing Group	: III
Road/Rail	: Pyrethroid pesticide, liquid, flammable, toxic
Air / IATA	: Pyrethroid pesticide, liquid, flammable, toxic
Sea	: Pyrethroid pesticide, liquid, flammable, toxic. (Marine pollutant)

Precautionary transport measures:

- Toxic, flammable material and marine pollutant. Avoid elevated temperatures.
- Keep away from food and animal foodstuffs.
- Keep lid tightly closed.
- Keep away from heat/sparks/open flames/hot surfaces and other ignition sources.
- Take precautionary measures against static discharge.
- Keep away from strong oxidants and alkalis.
- Keep lid tightly closed.

15. REGULATORY INFORMATION

CTX 108 and its ingredients are not banned substances in the Republic of South Africa, but prevailing national legislation must be adhered to. None of the constituents are ozone depleting chemicals under the Montreal Protocol on Substances that Deplete the Ozone

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Layer. None of the constituents are Persistent Organic Pollutants (POPs) listed under the Stockholm Convention.

Compliance with the following national/local regulations must be adhered to:

- National Water Act (Act No. 36 of 1998)
- National Health Act (Act No. 61 of 2003)
- Environment Conservation Act (Act No. 73 of 1989)
- Hazardous Substances Act (Act No. 15 of 1973)
- Occupational Health and Safety Act (Act No. 85 of 1993)
- Provincial Ordinances and Local Authority Bylaws

16. OTHER INFORMATION

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date of the last revision indicated on the present SDS and are presented in good faith and believed to be correct, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user and we expressly disclaim all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the product.

It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product.

The GHS (Globally Harmonized System of Classification and Labelling of Chemicals) compliant version of the SDS provided for this product was revised and finalized in October 2022 by Dr Marlene (MH) Fourie of INFOTOX (Pty) Ltd on behalf of Timberlife (Pty) Ltd and conforms to the requirements as stated within the latest edition of the UN Purple Book (Ninth revised edition, 2021) and also complies with Section 14 of the Regulations for Hazardous Chemical Agents, 2021. The document was also internally reviewed by Dr Willie van Niekerk of INFOTOX (Pty) Ltd.

This SDS was revised, and the latest revision finalised in August 2025 by Wilhelm E Conradie of TimberLife (Pty) Ltd to include the "Restrictions on use" statement under Section 1.

Date compiled: July 2002

Date of last revision: August 2025