Safety Data Sheet (SDS) CHL 500SC/01

According to UN GHS 9th Ed
Revision Date: 2022/03/02

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Version: 1.5

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

Product identifier:

Identification as on the label/Trade name: CHLOROFLO® 500 SC

Additional information: Product code CHL 500SC/01

Relevant identification uses of the substance and uses advised against:

Identified uses: Fungicide.

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

AECI Limited
14 Field Road, LILIANTON

Emergency telephone numbers:

Griffon Poison information centre: 082 446 8946
Poisons Information Helpline: 0861 555 777
AECI Limited: (011) 823 8000 (o/h) Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to

SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Skin sensitisation (Category 1)	H317
Serious eye damage (Category 1)	H318
Acute toxicity inhalation (Category 2)	H330
Carcinogenicity (Category 2)	H351
Specific target organ toxicity single exposure (Category 3)	H335
Hazardous to the aquatic environment (Acute 1)	H400
Hazardous to the aquatic environment (Chronic 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None.

The most important adverse human health effects: Causes serious eye damage and fatal if inhaled.

Label elements

Hazard pictograms:



Signal Word: Danger

Hazard Statements: H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H330 Fatal if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer. H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements: P260 Do not inhale mist/vapours or spray. P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P284 Wear respiratory equipment.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+ P311 If inhaled call a poison centre.

Special labelling of certain mixtures: None.

Other hazards: None.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients: Classification is based on the following ingredients which may be present**.**

Substance name (IUPAC/EC)	CAS –No. EC-No.	Concentration % by weight	Classification EC1272/2008
Chlorothalonil	1897-45-6 217-588-1	40-60%	Skin sensitisation (Category 1) H317. Serious eye damage (Category 1) H318. Acute toxicity inhalation (Category 2) H330. Carcinogen (Category 2) H351. STOT SE 3 H335. Aquatic acute 1 H400. Aquatic chronic 1 H410.
Ethylene glycol mono	107-21-1 203-473-3	1-5%	Acute toxicity oral (Category 4) H302

For full text of H statements see section 16

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 immediately.

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. Get 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 Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

Most important symptoms and effects, both acute and delayed:

Inhalation: Fatal if inhaled.

Ingestions: Harmful if swallowed.

Skin contact: May cause skin allergies.

Eye contact: Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed:

Fatal if inhaled immediate medical attention is required.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media: Carbon dioxide, dry powder, or alcohol-resistant foam.

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.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk

Special hazards arising from the mixture:

Thermal decomposition giving flammable and toxic products.

Advice for fire-fighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

For emergency responders: Use an approved/certified respirator or equivalent, isolate the spill area and limit the access to emergency responders only. Avoid any contact with spilled material, use adequate protective clothes and gloves.

Environmental precautions:

Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapours, if any. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers.
For large spills Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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.

Additional information:

None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid prolonged contact with concentrate. 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. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.
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 product in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL):
Ethylene glycol (CAS 107-21-1) OEL-RL 50 ppm, OEL-STEL 100 ppm. (Vapour fraction)

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 exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective OEL's if applicable. Ensure that eyewash stations 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. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use safety glasses. If there is a potential for exposure to particles/mist which could cause eye discomfort, wear chemical goggles.

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 clothing for task or operation. Keep working clothes separately.

Respiratory protection: Respiratory protection is required use an approved air-purifying respirator.

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 (form): Liquid.

Colour: Light beige opaque.

Odour: Characteristic odour.

Odour threshold: No information available.

pH (at concentration): 6-8 (100%)

Melting point/range (°C): No information available.

Boiling point/range (°C): No information available.

Flash point (°C): No information available.

Evaporation rate: No information available.

Flammability (solid, gas): No information available.

Ignition temperature (°C): No information available.

Upper/lower flammability/explosive limits: No information available.

Vapour pressure (20°C): No information available.

Vapour density: No information available.

Relative density (20°C): 1.35-1.45

Water solubility (g/l) at 20°C: No information available.

n-Octanol/Water partition coefficient: No information available.

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

Viscosity, dynamic (mPa s): 800-1200.

Physical hazards:

Explosive properties: No information available.

Other information:

Fat solubility (solvent-oil to be specified): No information available.

Bulk density: No information available.

Dissociation constant in water (p Ka): No information available.

Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

The product is stable under normal conditions.

Chemical stability:

Stable under normal storage conditions for 2 years.

Possibility of hazardous reactions:

No information available.

Conditions to avoid:

No information available.

Incompatible materials:

No information available.

Hazardous decomposition products:

No information available.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Information on toxicological effects:

Acute toxicity:

CHLOROFLO® 500 SC

Acute Toxicity:

Acute oral LD_{50} for rat 19552 mg/kg (calculated).

Inhalation LC_{50} for rat (4 h) 0.24 mg/ℓ.

Chlorothalonil

Acute oral LD_{50} for rat > 5000 mg/kg.

Dermal LD_{50} for rat > 5000 mg/kg.

Inhalation LC_{50} for rat (4 h) 0.10 mg/ℓ

Chronic toxicity: No information available.

Skin corrosion/irritation:

Chlorothalonil

Skin- rabbit- No skin irritation.

Serious eye damage/irritation:

Chlorothalonil

Eyes- rabbit- Moderate eye irritation.

Respiratory or skin sensitization:

Chlorothalonil

Skin sensitization- guinea pig-non-sensitizing.

Germ cell mutagenicity:

Chlorothalonil

Mouse: Lymphocyte, mutation in mammalian somatic cells.

Hamster: Ovary, Cytogenetic analysis.

Hamster: Ovary, DNA damage.

Hamster Ovary, Sister Chromatid exchange.

Human: Lymphocyte, DNA damage.

Fish: Micronucleus test

Carcinogenicity:

Chlorothalonil

Carcinogenicity- rat- Oral

Tumorigenic: Carcinogenic by RTES criteria. Kidney, Ureter, Bladder: Kidney tumours.

Limited evidence of carcinogenicity in animal studies
IARC: 2B- Group 2B: Possible carcinogenic to humans (Chlorothalonil)

Reproductive toxicity: No information available.

STOT-single exposure: May cause respiratory irritation.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Chlorothalonil

Fish:

LC_{50} (96 h) 0.012 mg/ℓ, *Oncorhynchus mykiss* (rainbow trout).

Toxicity to *Daphnia* and other aquatic invertebrates:

EC_{50} (48 h) 0.06 mg/ℓ, *Daphnia magna* (Water flea).

Algae:

EC_{50} (72 h) 0.6 mg/ℓ, *Desmodesmus subspicatus* (green alga)

Persistence and degradability:

No information available.

Bioaccumulative potential:

Bioaccumulation (96 h) 10 µg/ℓ, *Oncorhynchus mykiss* (rainbow trout).

Mobility in soil:

No information available.

Results of PBT& vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects:

Very toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Consider suitable waste recycling, re-use or recovery options. Dispose of in accordance with municipal, provincial and national regulations. Waste Classification and Management Regulations (GN 634 of 2013). Dispose and or manage in accordance with the requirements contained in R634 Waste Classification & Management Regulations, R635 National Norms & Standards for the Assessment of Waste for Landfill Disposal and R636 National Norms & Standards for Disposal of Waste to Landfill.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	2996	2996	2996
UN Proper shipping name:	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC
Transport hazard class:	6.1 (9)	6.1 (9)	6.1 (9)
Packaging group:	II	II	II
Marine pollutant:	Yes	Yes	Yes
Special precautions for user:	Not required	Not required	Not required
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	Not required	Not required	Not required

Inland waterways: Not required.

Emergency response information: Not required.

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 9, 2021.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH)

Relevant information regarding restrictions: None.

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.

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

All sections.

Relevant classification and H statements (number and full text):

STOT SE 3- Specific target organ toxicity single exposure (Category 3).

Aquatic acute 1: Hazardous to the aquatic Environment (Acute 1)

Aquatic chronic 1: Hazardous to the aquatic Environment (Chronic 1)

H317 Causes skin sensitisation. H318 Causes serious eye damage. H330 Fatal if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer. H400 Very toxic to aquatic life. H410 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.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.