



MATERIAL SAFETY DATA SHEET

TERMIBAN[®] 48TC

ASTRA INDUSTRIAL COMPLEX CO., LTD. (ASTRACHEM)
P.O. Box 30447, AL-KHOBAR 31952
KINGDOM OF SAUDI ARABIA

1. PRODUCT IDENTIFICATION

Product Name: **TERMIBAN[®] 48TC**

Active ingredient: **Chlorpyrifos**

Chemical Class: Organophosphate Insecticide

Use: TERMIBAN[®] 48TC is an emulsifiable concentrate formulation of the active ingredient Chlorpyrifos. It used for the control and prevention of termites infestation.

Producer: **Astra Industrial Complex Co., Ltd.**
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Kingdom of Saudi Arabia
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2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance	Proportions (% w/w)	Chemical structure
Chlorpyrifos CAS No. 2921-88-2 Chemical Name: O,O-diethyl O-3,5,6-trichloro-2-pyridyl phosphorothioate	45.60	
Organic solvents	48.80	
Formulation aids	5.60	



3. HAZARD IDENTIFICATION

Acute Effects

Swallowed:

The concentrate is moderately toxic. Small amounts swallowed incidental to normal handling operations are not likely to cause injury. However, swallowing larger quantities may cause serious injury or even death. If the liquid entered the lungs it may cause lungs injury or even death due to pneumonia.

Eye:

Moderately irritating to the eyes. Vapors may irritate the eyes.

Skin:

Prolonged exposure may cause skin irritation. No evidence of skin sensitization during manufacturing.

Inhalation:

Inhalation of excessive amount of spray may cause cholinesterase inhibition. Prolonged exposure to solvent may cause respiratory irritation and central nervous system depression.

Chronic effects:

A measurable change in plasma and red blood cell cholinesterase levels were seen in workers exposed to Chlorpyrifos spray.

Chlorpyrifos does not adversely affect reproduction.

Chlorpyrifos is not teratogenic.

There is no evidence that Chlorpyrifos is mutagenic or carcinogenic

Other Health Hazard Information

Cholinesterase Inhibitor

4. FIRST AID MEASURES

First Aid:

Swallowed:

If poisoning occurs, contact a doctor. Do not give fluids or induce vomiting if person is unconscious or having convulsions. Get affected person to a doctor or hospital promptly.

Eye:



Irrigate for 15 minutes with copious quantities of water with eyelids held open. Seek medical advice.

Skin:

Remove contaminated clothing at once, wash skin thoroughly with soap and water. Obtain medical attention immediately.

Inhalation:

Remove to fresh air. Get to a doctor or hospital promptly.

First Aid Facilities:

Obtain an emergency supply of Atropine injection.

Advice to doctor:

A cholinesterase inhibitor. Treat symptomatically. In case of poisoning, use antidote immediately after establishing an open airway and respiration. Atropine injection is the profaned antidote. Oximes, such as PAM protoplasm may be used in conjunction with atropine.

5. FIRE FIGHTING MEASURES

Flash point: 41°C

Toxic gases containing oxides of sulphur and phosphorous may be evolved if involved in fires or exposed to extreme heat. Breathable air apparatus may be required in confined area. Stay upwind.

Extinguishing Media:

Water fog, dry chemical, foam or carbon dioxide. Alcohol resistant foams are preferred if available.

Special fire fighting procedures:

Fire fighters should use self contained breathing apparatus. Prevent runoff of fire water. Avoid exposure to smoke.

6. ACCIDENTAL RELEASE MEASURES

Contain spill and absorb with sand or proprietary absorbent (vermiculite). Prevent from entering drains, waterway or sewers. Collect in sealed open top containers for disposal.

Disposal:

Triple rinse containers, add rinsate to the spray tank, then offer container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. On-site disposal of concentrate is not acceptable.



7. HANDLING AND STORAGE

Keep out of reach of children, do not store with food, feed or other material to be used or consumed by humans or animals. Do not contaminate water supplies, lakes, streams, or ponds. Store in a secure, dry, well-ventilated area, segregated from oxidizers and incompatible materials. Protect from moisture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards:

Exposure standard for Chlorpyrifos: 0.2 mg/m³ (OSHA PEC)

Engineering Controls:

Natural ventilation only required when handling the concentrate. A local exhaust should be used in confined areas to keep the level of solvent within acceptable limits.

Personnel Protection:

The concentrate is harmful; skin absorption is the most common route of exposure. May irritate the eyes and skin. Repeated minor exposure may have cumulative effects. Avoid contact with the skin and eyes and avoid breathing the vapour. Do not inhale the spray mist. When opening the container of concentrate and preparing the spray, wear cotton overalls buttoned to the neck and wrist, washable hat and elbow-length PVC gloves. When using in an enclosed area wear face shield.

If product spilled on skin wash area thoroughly with soap and water. After use and before eating drinking or smoking, wash hands, arms, face thoroughly with soap and water. After each day's use, wash gloves, face shield and contaminated clothing. Do not eat or smoke while spraying.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear light yellow to light brown liquid free of visible impurities.
Odour	Slightly aromatic
Density	1.074 Kg/L
Flash point	41°C
Solubility in H ₂ O	Emulsifiable

Other Properties:



Concentrate forms an emulsion with water.

10. STABILITY AND REACTIVITY

Stability	Stable under room temperature.
Conditions to avoid	Contact with iron and strong alkalis and storage above 50°C
Polymerization	Will not occur
Condition to avoid	None currently known
Incompatibility	Avoid contact with strong oxidizers

11. TOXICOLOGICAL INFORMATION

Technical Chloropyrifos:

Acute oral LD50 for rates : 135 – 163 mg/Kg

Acute dermal LD₅₀ for rabbits: 5,000 mg/Kg

Toxic to fish : Highly toxic to fish
LC₅₀ for bluegill sunfish : 0.002-0.010 mg/L (96h)

Toxicity to Bees : Toxic to bees
Toxicity to birds : Moderate to highly toxic to birds

12. ECOLOGICAL INFORMATION

Toxic to fish.
Dangerous to bees.
Do not spray and plants in flower while bees are foraging.
Do not contaminate dams, rivers or streams with pesticide or used container.
Do not use container for any other purpose.
Triple rinse containers with water and add rinsate to the spray solution.
Puncture top, bottom and sides of empty container, then crush and bury in an approved landfill, or bury under at least 500 mm of soil in a non –crop, non-pasture area way from water sources or homes.

13. DISPOSAL CONSIDERATION



Pesticide wastes are toxic. Do not reuse product containers.
Dispose of product containers, waste containers and residues
according to local health and environmental regulations.

14. TRANSPORT INFORMATION

Proper Shipping Name:	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAAMMABLE (Chlorpyrifos)
UN number	UN3017
Class	6.1
Packing Group	III
Marine Pollutant	Yes

15. REGULATORY INFORMATION.

SARA, Title III
Chlorpyrifos (CAS: 121-75-5)
Section 311/312
Acute Health Hazard
Chronic Health Hazard

16. OTHER INFORMATION

Buyer assumes all responsibility for safety and use not in accordance
with the product label instructions.