PRODUCT SAFETY DATA SHEET OF CHLOROPYRIPHOS 50%EC

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name	NOBAN-TC 50 EC
Technical Name	CHLOROPYRIPHOS 50 % EC
Chemical Name of	O, O-Diethyl-O-(3, 5, 6-trichloro -2-pyridiniyl) Phoshhorothioate.
Formula	$C_9H_{11}Cl_3NO_3PS$
Supplier	CHEMET WETS & FLOWS P. LTD Plot no. 129/c/2, GIDC Estate, Ankles war 393002 Tel: 91-2646 239490
Manufacturer	CHEMET WETS & FLOWS P. LTD Plot no. 129/c/2, GIDC Estate, Ankles war 393002 Tel: 91-2646 239490
Emergency Phone No. **Fax No**	02646-239490 02646-220254
Environmental, Health and Safety Department	02646-239490 02646-220254
Email id	chemetank@gmail.com

2.COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS NO	Percentage
Chlorpyrifos EC	2912-88-2	50%

3.- HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

EYE: Essentially non-irritating to the eyes.

SKIN: Prolonged contact is essentially non-irritating to the skin. Did not cause allergic skin reactions when tested in guinea pigs. A single prolonged exposure is not likely to result in the material being absorbed

through skin in harmful amounts. The LD50 for skin absorption in rabbits is >10,000 mg/kg.

INGESTION: Single dose oral toxicity is extremely low. The oral LD50 for rats is >25,000 mg/kg. No hazards anticipated from swallowing small amounts incidental to normal handling operations. If aspirated (liquid enters the lung), may cause lung damage or even death due to chemical pneumonia.

INHALATION: Vapors are unlikely due to physical properties. Excessive exposure to mists of the petroleum distillate may cause respiratory and eye irritation.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: For **Chlorpyrifos**, excessive exposure may produce organophosphate type cholinesterase inhibition. Chlorpyrifos produced mild adrenal effects when fed to rats, but only at doses that greatly exceeded any exposures that would be received during use of this product. Excessive exposure to Chlorpyrifos is extremely unlikely due to physical state (encapsulated. For the solvent, in animals, effects have been reported on the following organs following exposure to aerosols: central nervous system and respiratory tract. Observations in animals include anesthetic or narcotic effects.

CANCER INFORMATION: Chlorpyrifos did not cause cancer in laboratory studies.

TERATOLOGY (BIRTH DEFECTS): Chlorpyrifos did not cause birth defects; other fetal effects occurred only at doses toxic to the mother.

REPRODUCTIVE EFFECTS: Chlorpyrifos did not interfere with fertility in reproduction studies in laboratory animals. Some evidence of toxicity to the offspring occurred, but only at a dose high enough to produce significant toxicity to the parent animals.

4. FIRSTS AID MEASURES

General advice

Have the product container, label or Material Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment

Inhalation

Move the victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician or poison control centre immediately.

Skin contact

Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. Immediate medical attention is required

Ingestion

If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting.

Medical advice

Call Chemet at the emergency number shown in this document, a poison control centre or doctor immediately for treatment advice. Consider taking venous blood for determination of blood cholinesterase activity (use heparin tube). Administer atropine sulphate, either by intramuscular or intravenously, dependant on severity of poisoning. Specific antidotes are oxides (e.g. Pralidoximc) or Toxogonin.

5. FIRE-FIGHTING MEASURES

Flash Point	>24.5^{0}C
Method Use	Able Close cup
Flammable Limits	LFL: None UFL: None

Hazardous Combustion Products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to sulfur oxides, phosphorus compounds, nitrogen oxides, hydrogen chloride, carbon monoxide, and carbon dioxide.

OTHER FLAMMABILITY INFORMATION: Container may rupture from gas generation in a fire situation

EXTINGUISHING MEDIA: To extinguish combustible residues of this product use carbon dioxide, dry chemical or foam.

FIRE FIGHTING INSTRUCTIONS: Keep people away. Isolate fire area and deny unnecessary entry. To extinguish combustible residues of this product use carbon dioxide, dry chemical, or foam. Fight fire from a protected location or safe distance. Consider use of unmanned hose holder or monitor nozzles. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of re-ignition has passed. Immediately withdraw all personnel from area in case of rising sound from venting safety device or discoloration of the container. Move container from fire area if this is possible without hazard. Contain firewater run-off if possible. Fire water run-off, if not contained may cause environmental damage.

PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6.Accidental Release Measures

ACTION TO TAKE FOR SPILLS/LEAKS:

Absorb small spills with dry material such as sand, Saw Dust. Wash thoroughly after handling. Contain spill by diking to keep out of sewers. Barricade area and Report large spills to Chemet at given number in section 1.

7. HANDLING AND STORAGE

Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides or fertilizers. Store below 122°F (50°C). Keep out of reach of children. Avoid contact with eyes and skin. Do not ingest this product.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. **SKIN PROTECTION:** No precautions other than clean body-covering clothing should be needed.
EYE PROTECTION: Use safety glasses.
APPLICATORS AND ALL OTHER HANDLERS: Refer to the product label for personal protective clothing and equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	DNA
Vapor Pressure	DNA
Solubility in water	Disperses in water
Specific Gravity	1.08-1.12 @20^{0}C
pH	NA
Appearance	Brownish liquid
Odor	Solvent Type

10. STABILITY AND REACTIVITY

STABILITY: Stable under recommended storage conditions. Unstable at elevated temperatures.

CONDITIONS TO AVOID: Avoid temperatures above 122°F (50°C). Chlorpyrifos decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

HAZARDOUS DECOMPOSITION: Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Hazardous decomposition products may include and are not limited to hydrogen chloride, organic sulfides, and sulfur dioxide. Toxic gases are released during decomposition.

INCOMPATIBLE MATERIALS: Avoid contact with oxidizing materials and bases.

HAZARDOUS POLYMERIZATION: Not known to occur.

11.TOXICOLOGICAL INFORMATION

MUTAGENICITY: Based on a majority of negative data and some equivocal or marginally positive results, **Chlorpyrifos** is considered to have minimal mutagenic potential.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGY: Based largely or completely on information for **Chlorpyrifos**. Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in most sensitive species). Material is highly toxic to birds on a dietary basis (LC50 between 50 and 500 ppm). Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg).

DEGRADATION & PERSISTENCE: Based largely or completely on information for **Chlorpyrifos**. The photolysis half-life in water is 3-4 weeks. In the atmospheric environment, material is estimated to have a tropospheric half-life of 1.4 hours. Degradation is expected in the soil environment within days to weeks. Under aerobic soil conditions the half-life is generally 30-60 days.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Do not contaminate food, feed, or water by storage or disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of law. Pesticide, spray mixture, or rinse water that cannot be used according to label instructions must be disposed of in accordance with applicable local, state or federal requirements.

14. TRANSPORT INFORMATION

NONE.

15. REGULATARY INFORMATION

NONE.

16. OTHER INFORMATION

NONE.

DISCLAIMER

All reasonable care has been exercised in processing your request for information on the chemical listed in this Material Safety Data Sheet. No warranty is made, either expressed or implied and Perisseuma Projects does not hold itself liable for any injury, illness, loss or misinterpretation arising from the use of this data. CHEMET WETS & FLOWS P.LTD makes no warranty expressed or implied in respect of the adequacy of this document for any particular purpose.

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