

MATERIAL SAFETY DATA SHEET

5-Apr-00

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

P.T. Pacific Chemicals Indonesia

Wisma GKBI, Floor 20, Suite 2001
Jalan Jenderal Sudirman No. 28
Jakarta 10210
Indonesia
Tel: 62-21-574 2020

Emergency Tel: 62-21-574 2020

Product Name: **NURELLE* D 505 EC INSECTICIDE**

SMC : 110714

Issue Date: October 1997

Ref: CHC07

Composition Code: GF-82

Revised: 13 December 1999

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components contributing to hazard:

		CAS
Chlorpyrifos	45.4 % w/w	002921-88-2
Cypermethrin	4.5 % w/w	052315-07-8
Blend of anionic and non-ionic surfactants	9.0 % w/w	
Aromatic hydrocarbon solvent	Balance	064742-95-6

3. HAZARDS IDENTIFICATION

Flammable. Harmful if swallowed. Risk of serious damage to eyes.
Irritating to skin. Very toxic to aquatic organisms. Toxic to bees.

4. FIRST-AID MEASURES

Never give fluids or induce vomiting if patient is unconscious or is having convulsions.

Ingestion

Do not induce vomiting. Call a physician and/or transport to emergency facility immediately. The decision of whether to induce vomiting or not should be made by an attending physician.

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Eye Contact

Immediate and continuous irrigation with flowing water for at least 30 minutes is imperative. Prompt medical consultation is essential.

Skin Contact

Immediately wash skin with soap and plenty of water. Remove contaminated clothing. Wash contaminated clothing before reuse.

Inhalation

Remove to fresh air. Consult a physician.

Note to Physician

This material contains both a cholinesterase inhibitor and a solvent. Signs of poisoning may include dizziness, nausea, vomiting, intestinal spasms, diarrhoea, contracted pupils and difficulty in breathing. Atropine by intravenous administration is the antidote of choice. Oximes may or may not be therapeutic but it is recommended that they should not be used in place of atropine. If lavage is performed, suggest endotracheal and/or oesophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Supportive care. Treatment based on judgement of physician in response to symptoms of patient.

5. FIRE-FIGHTING MEASURES**Extinguishing Media**

Water fog or fine spray. Carbon dioxide. Dry chemical. Foam.

Hazardous Combustion Products

Hydrogen chloride, Sulphur oxides, Nitrogen oxides, Hydrogen cyanide, dependant on the intensity of the fire.

Protection of Firefighters

Wear protective clothing and use self-contained breathing apparatus.

Additional Information

Violent eruption of containers may occur under fire conditions. Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage systems.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions**

Wear appropriate safety clothing and eye/face protection (see Section 8).

Environmental Precautions

Do not wash into sewers or into any body of water. Advise water authority if spillage has entered water course or drainage system.

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Methods of Cleaning Up

Soak up with sand or other non-combustible absorbent material and place into containers for disposal. For large spills, barricade area and consult manufacturer. If further assistance is required, telephone the emergency contact number.

Additional Information

Eliminate all ignition sources.

7. HANDLING AND STORAGE**Handling**

Use good personal hygiene. Do not consume or store food in the work area. Wash hands and exposed skin before eating, drinking or smoking and after work. Avoid breathing vapours. Avoid eye contact.

Storage

Product should be stored in compliance with local regulations. Store in a cool, dry, well-ventilated place in the original container. Protect from excessive heat and cold. Do not store near food, drink, animal feeding stuffs, pharmaceuticals, cosmetics or fertilisers. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

None established for the preparation.

Chlorpyrifos: ACGIH Threshold Limit Value (TLV) is 0.2 mg/m³ TWA-8 hours (skin). Supplier recommendation for solvent is 100 ppm

Engineering Controls

Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Respiratory Protection

When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator.

For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

Hand/Skin Protection

For brief contact, no precautions other than clean body-covering clothing and chemical resistant gloves should be needed. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.

For emergency conditions: Use protective clothing impervious to this material. Selection of specific items will depend on operation.

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Eye/Face Protection

Use chemical goggles. If vapour exposure causes eye discomfort, use a full-face supplied-air respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: clear liquid
Colour	: pale yellow
Rel. density (water=1)	: 1.099 approx. (20 deg.C)
Water solubility	: emulsifiable
Flash point	: 42 deg.C (PMCC)

10. STABILITY AND REACTIVITY**Chemical Stability**

Is stable under normal storage conditions.

Conditions to Avoid

Avoid high temperatures (at or near flash point), open flame, sparks and direct sunlight. Contains petroleum derivative solvent - will burn.

Materials to Avoid

Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products

None under normal conditions of storage and use.

Additional Information

Chlorpyrifos: Product undergoes exothermic decomposition which can lead to high temperatures and violent decomposition if heat developed is not removed.

11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Based largely or completely on information for similar material(s).

Ingestion

Single dose oral toxicity is considered to be moderate.
The estimated oral LD50 for rats is >200mg/kg, <2000mg/kg.

Skin Contact

The estimated dermal LD50 for rats is >2000mg/kg.
A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.
Short single exposure may cause skin irritation.

Sensitisation

Non-sensitising to guinea pig skin.

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Eye Contact

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.

Inhalation

No adverse effects anticipated by this route of exposure, but excessive exposure should be avoided.

Other Information

Excessive exposure may cause organophosphate type cholinesterase inhibition.

12. ECOLOGICAL INFORMATION**Persistence and Degradability**

Chlorpyrifos:

Does not leach in soils and is therefore unlikely to contaminate ground water. Half-life in soils is dependent on soil type and conditions and is approximately 10-56 days.

Cypermethrin:

In soil, the half-life is approximately 14-28 days. Does not leach in soils and is therefore unlikely to contaminate ground water. There is no carry-over to follow-on crops.

Aquatic Toxicity

Acute LC50 for rainbow trout (*Onchorynchus mykiss*) is 0.0075 mg/L.

Acute LC50 for daphnids is reported to be 0.00034mg/L.

Algal toxicity EC50 for green algae is 1.1mg/L.

Avian Toxicity

Chlorpyrifos:

Material is moderately toxic to birds on an acute basis (50mg/kg <LD50 <500mg/kg).

Cypermethrin:

Material is practically non-toxic to birds on an acute basis (LD50 >2000mg/kg).

Other Information

LD50 for earthworms is 120mg/kg.

Chlorpyrifos: Toxic to bees.

Cypermethrin: Toxic to bees.

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13. DISPOSAL CONSIDERATIONS

Very toxic to aquatic organisms. Do not contaminate ponds, waterways or ditches with chemical or used container. Wash out thoroughly. Container and washings must be disposed of safely and in accordance with applicable regulations. The preferred options are to send to licensed reclaimer or to permitted incinerators. Do not re-use container for any purpose.

14. TRANSPORT INFORMATION

Road, Rail & Barge

Proper shipping name: 3017, PESTICIDES, LIQUID, TOXIC, FLAMMABLE N.O.S.
(CONTAINS CHLORPYRIFOS 45.4%, CYPERMETHRIN 4.5%
AND AROMATIC HYDROCARBON SOLVENT)

Truck - ADR Loaded : 6.1-72c Empty : 6.1-91 Label : 6.1 + 3

Rail - RID Loaded : 6.1-72c Empty : 6.1-91 Label : 6.1 + 3

Filling % Packed :

Filling % Bulk :

Filling Kg/L (Gas) :

Kemler Code : 63

UN Number : 3017

Tremcard Nr. CEFIC : T-61G43C

Tremcard Nr. Other :

Barge - ADNR Loaded : 6.1-72c Empty : 6.1-91 Label: 6.1+ 3

Ship Type : CATG. :

Sea

Proper shipping name: ORGANOPHOSPHORUS PESTICIDES, LIQUID, TOXIC,
FLAMMABLE, N.O.S. (CONTAINS CHLORPYRIFOS 45.4%
CYPERMETHRIN 4.5% AND AROMATIC HYDROCARBON
SOLVENT)

Sea - IMO/IMDG Class: 6.1 UN Nr : 3017 Label: 6 + 3

Packing Group : III EMS : 6.1-01 MFAG : 505

Container Type : 1 Marine Pollutant : Y (Y/N)

Test Pressure (bar) : 4.0 Filling % Packed :

Filling % Bulk :

Filling Kg/L (Gas) :

Air

Proper shipping name: ORGANOPHOSPHORUS PESTICIDES, LIQUID, TOXIC,
FLAMMABLE, N.O.S. (CONTAINS CHLORPYRIFOS 45.4%
CYPERMETHRIN 4.5% AND AROMATIC HYDROCARBON
SOLVENT)

Air-ICAO/IATA Class : 6.1 UN Nr : 3017 Label: 6.1 + 3

Sub Class : 3

Packing Group : III Pack Instr. Passenger : 611

Pack Instr. Cargo : 618

Remarks : Sample shipment not allowed by mail.

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15. REGULATORY INFORMATION

Hazard Symbol : Xn - Harmful

Risk Phrases : Flammable. (R10)
Harmful if swallowed. (R22)
Risk of serious damage to eyes. (R41)
Irritating to skin. (R38)

Safety Phrases : Keep out of reach of children. (S2)
Keep away from food, drink and animal feeding stuffs.
(S13)
When using do not eat, drink or smoke. (S20/21)
Avoid contact with skin and eyes. (S24/25)
In case of contact with eyes, rinse immediately with
plenty of water and seek medical advice. (S26)
If swallowed, do not induce vomiting: seek medical
advice immediately and show this container or label.
(S62)

16. OTHER INFORMATION

This MSDS update is based on: EU KBE16 Effective date: October 1997

The information herein is given in good faith, but no warranty, express or implied, is made. Consult Dow AgroSciences for further information.