MATERIAL SAFETY DATA SHEET

MYPHOS 505

1. CONTACT

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2. PRODUCT IDENTIFICATION

Chemical names (C.A. name):
Chlorpyrifos : O, O -diethyl O -(3,5,6-trichloro-2-pyridyl) phosphorotoate
Cypermethrin : cyano (3-phenoxybenxyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethyl-= cyclopropanecarboxylate

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	% w/w
Chlorpyrifos	02921-88-2	41.1
Cypermethrin	52315-07-8	5.0
Inert ingredients	-	53.9

4. PHYSICAL & CHEMICAL PROPERTIES

Appearance : Clear liquid
Color : Yellowish
Acidity : 0.05% max.
Specific Gravity : 1.09
Water solubility : emulsifiable
Incompatibility : Incompatible with alkaline material

5. HEALTH HAZARD INFORMATION

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

6. 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.

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, diarrhea, 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 judgment of physician in response to symptoms of patient.

7. TOXICOLOGICAL DATA

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 200 - 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.
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.

8. PERSONAL PROTECTION REQUIREMENTS

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.
Eye/Face Protection
Use chemical goggles. If vapor exposure causes eye discomfort, use a full-face supplied-air respirator.

9. 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 vapors. 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 fertilizers. Keep out of reach of children.

10. FIRE FIGHTING PROCEDUCE

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.

11. SPILLS, LEAKAGES & DISPOSAL PROCEDURES

In case of spills & leakages – Absorb the spilled or leaked material with absorbant material like saw dust, sand, crushed bricks and incinerate in incinerator.

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.

12. TRANSPORT INFORMATION

Transport in clearly labeled, rigid leak proof containers under lock & key safe from accessed by unauthorized persons.
Do not transport with food and feedstuffs.
T symbol
R: 23/24/25
S: 2-13-44
UN Haz Class: 6.1
UN Pack Group: III

13. ECOLOGICAL INFORMATION

Aquatic Toxicity

Acute LC50 for rainbow trout is 0.0075 mg/L.
Acute LC50 for daphnia 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 (LD50 50 - 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.

14. 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.

15. REGULATORY INFORMATION

This information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.