

MASTER SAFETY DATA SHEET

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

Product Name: **EMPIRE*20** *Trademark of Dow AgroSciences

LV70: 13042 Issue Date: Dec. 93 Ref: H8615

Revised: March 98

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components contribution to hazard:

	CAS	EINECS
Chlorpyrifos 208 g/L	002921-88-2	220-864-4
Proprietary Petroleum 100 g/L		
Solvent		
Inert ingredients Balance		

3. HAZARDS IDENTIFICATION

Harmful to fish

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. The decision of whether to induce vomiting or not should be made by an attending physician.

Eye Contact

Flush eyes with plenty of water.

Skin Contact

Wash off in flowing water or shower.

Inhalation

Remove to fresh air. Consult a physician.

Note to physician

This material contains a cholinesterase inhibitor. Atropine by intravenous administration is the antidote of choice. Oximes may or may not be therapeutic but it is recommended that they be 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. Sulfur oxides. Nitrogen oxides. Dependent on the intensity of the fire.

Protection of Firefighters

Wear protective clothing and use self-contained breathing apparatus.

Additional Information

Keep containers cool by spraying with water. Contain runoff to prevent entry into water or drainage system

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.

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.

7. HANDLING AND STORAGE

Handling

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

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

Chlorpyrifos: ACGIH Threshold Limit Value (TLV) is 0.2 mg/m³ TWA-8 hours (skin).

Engineering Controls

Good general ventilation should be sufficient for most conditions.

Respiratory Protection

For most conditions, no respiratory protection should be needed.

However, 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

Wear clean, long-sleeved, body-covering clothing.

For emergency conditions: Use protective clothing impervious to this material.

Eye/Face Protection

Eye protection should not be necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : suspension

Colour : white

Odour : low
Rel. density (water=1) : 1.03 g/cm³ (approx.)
Water solubility : disperses
Vapour pressure : 17.5 mmHg/20 deg.C
Flash point : none (TCC)

10. STABILITY AND REACTIVITY

Chemical Stability

Is stable under normal storage conditions.

Conditions to Avoid

Avoid extremes of temperature.

Materials to Avoid

Strong basic, acidic or oxidising materials.

Hazardous Decomposition Products

None under normal conditions of storage and use.

11. TOXICOLOGICAL INFORMATION

Ingestion

Single dose oral toxicity is considered to be extremely low.

The oral LD₅₀ for rats is >25000 mg/kg.

Skin Contact

The dermal LD₅₀ for rabbits is >10000mg/Kg.

A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts.

Prolonged contact is essentially nonirritating to skin.

Eye Contact

Essentially non-irritating to eyes.

Inhalation

No adverse effects anticipated by this route of exposure incidental to proper handling. Vapours are unlikely due to physical properties.

Other Information

Excessive exposure may cause organophosphate type cholinesterase inhibition.

12. ECOLOGICAL INFORMATION

Persistence and Degradability

Assessment largely or completely based on data for active ingredient.

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 60 days.

Aquatic Toxicity

Material is slightly toxic to fish on an acute basis (10mg/l < LC₅₀ < 100mg/L).

Avian Toxicity

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

13. DISPOSAL CONSIDERATIONS

Don 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

Material not classified for transport on land (road, rail, barge).

Sea

Proper shipping name : ENVIRONMENTALLY HZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Contains Chlorpyrifos 20.8%).

Sea – IMO/IMDG Class: 9 UN N: 3082 Label: -

Packing Group : III EMS : - MFAG:-

Container Type : 2 Marine Pollutant :Y (Y/N)

Test Pressure (bar) : 1.5 Filling % Packed :

Filling % Bulk :

Filling Kg/L (Gas) :

Air

Proper shipping name : ENVIRONMENTALLY HZARDOUS SUBSTANCE, LIQUID,
N.O.S. (Contains Chlorpyrifos 20.8%).

Air-ICAO/IATA Class : 9 UN Nr : 3082 Label: 9

Sub Class :

Packing Group : III Pack Instr. Passenger : 911

Pack Instr. Cargo : 911

Remarks : Sample shipment not allowed by mail.

15. REGULATORY INFORMATION

Hazard Symbol : None required

Risk Phrases : None required

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)

16. OTHER INFORMATION

This Master Safety Data Sheet complies with basic EU regulatory requirements for Safety Data Sheets on the date of publication, and is intended for translation and adaptation into European National documents. This document should NOT be relied upon for compliance with the laws and regulations of individual countries without the appropriate local translations and adaptations. It is your responsibility

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